

# small air forces observer

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July 2016

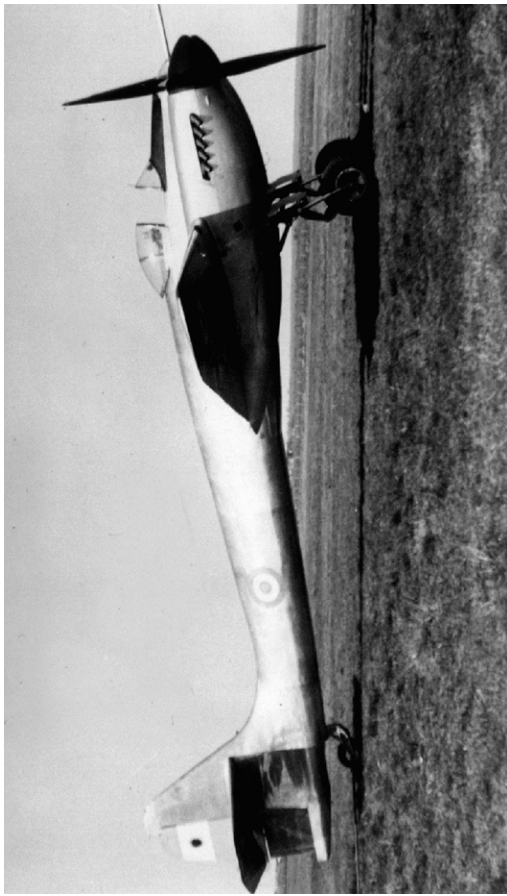
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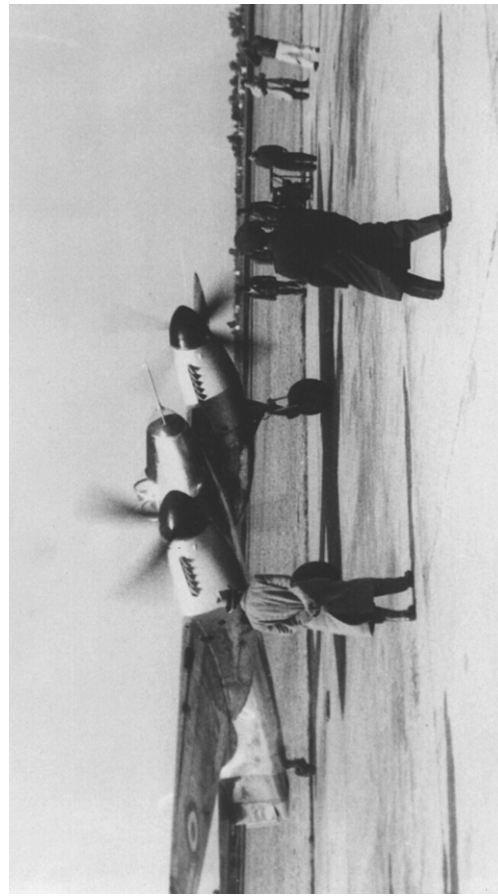
French Aircraft in the Polish Wars 1919-1920  
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AW. 16 in China  
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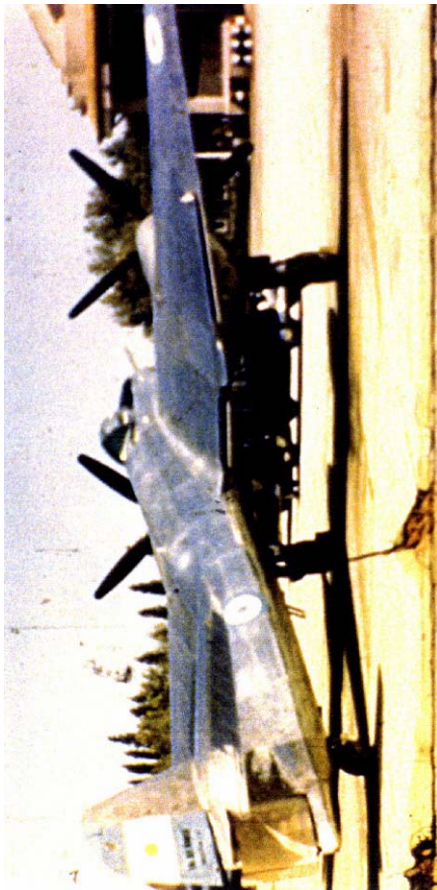
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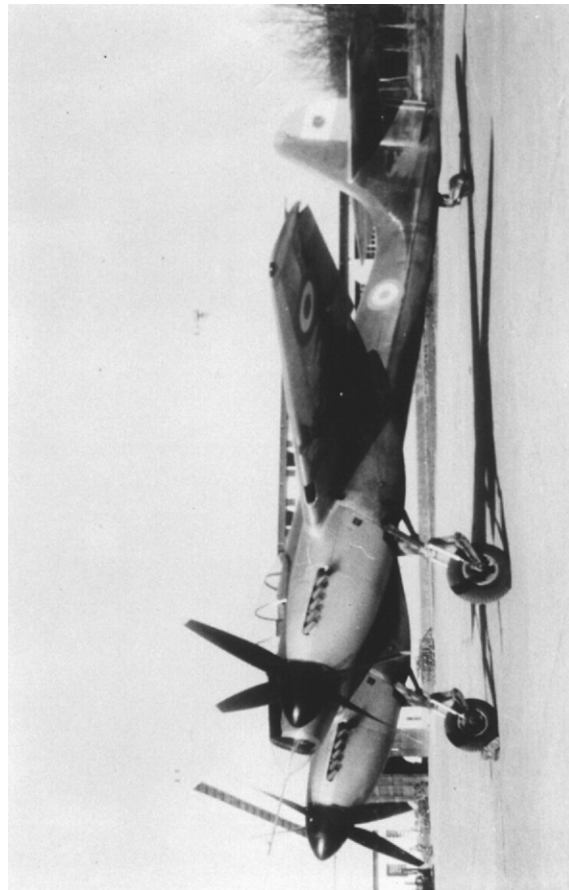
The I.Ae.30 Ñancú in its initial configuration.



The Ñancú before one of the test flights.



The only known color photograph of the I.Ae.30 Ñancú, taken at the FMA.



The plane at the Fábrica Militar de Aviones with the undercarriage rear doors installed.

# SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearinghouse

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**SAFO EDITORIAL POLICY:** The purpose of the Small Air Forces Clearinghouse (SAFCH) is to "promote interest in the history and modeling of the aircraft of the smaller countries". In support of this goal, the SAFCH encourages international cooperation in researching aviation history, both military and civil, from all periods of time, and for all the smaller countries. The results of this research are published in our quarterly journal, the Small Air Forces Observer (SAFO)

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**THE SYDNEY AWARD:** This is a quarterly award given to a member who has consistently provided excellent articles for publication in SAFO. The awards consists of a one-year subscription to SAFO and is funded by the Richard E. Cross and Naidene Denton Cross Memorial Fund. The honoree this quarter is Jorge Delgado for his series of articles on Ecuadorian aviation history.

**COVER COMMENTS:** Bloch MB 151 Δ-173 one of nine delivered to the Greek EVA in April 1940 and assigned to No. 24 Mira Dioxeos (Fighter Sqn) at Athen's Eleusis airfield. It served with the unit until March/April 1941, when it was landed at Larisa, in Thessaly, with engine problems. This photo, showing Δ-173 in happier times, was "colorized" by Greek artist Markos Danezis.

Editor note: The drawing of the Greek MB.151 that appears on page 12 is from the article *Royal Hellenic Air Force in 1940*, by Elias Korobilis that appeared in the October 1991 issue of SAFO. This article first appeared in *NEA*, the journal of IPMS-Greece. Here's what Doug Dildy says about the drawing: "This is definitely an MB 151 since the MB.152 mounted a pair of HS 404 20mm cannon and the thick gun barrels protruded prominently from the leading edges of the wings. The MB 151s were delivered in French camouflage consisting of chocolate, medium green, and medium gray. Judging by 'colorized' photos of D-177, it appears that the Greeks painted over the gray portions of (at least) the fuselage to make it all green and brown."

## AUSTRALA

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## FRANCE

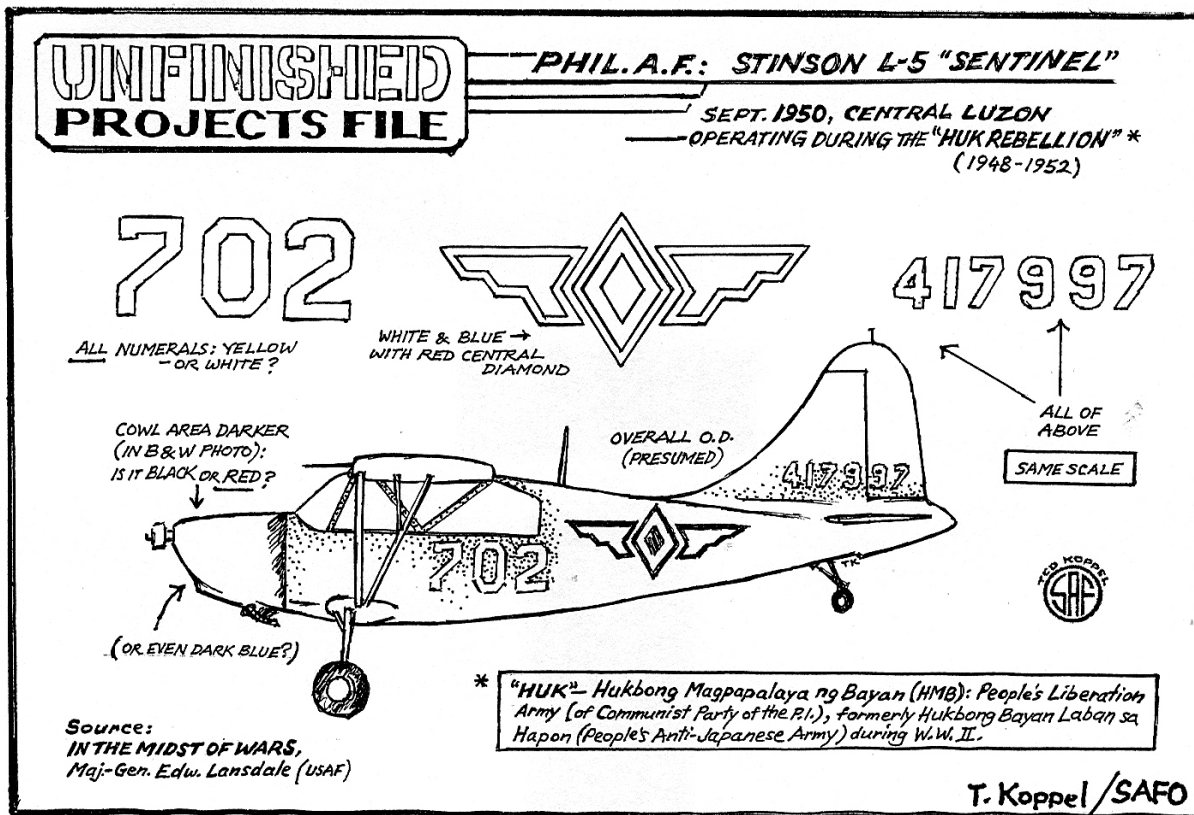
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"Amy Johnson, la romantique de l'air (2<sup>e</sup> partie)" 8 pages inc. 23 photos (Puss Moth & DeH Dragon).

**#211 Mai/Juin 2016** (94 pages) "Tigres voiants sur la jungle: La saga du 26<sup>th</sup> FS/51<sup>st</sup> FG (1<sup>re</sup> partie)" 14 pages inc. 30 photos and 4 color profiles (Curtiss P-40K). "Le Grumman F6F Hellcat (1<sup>er</sup> partie)" 20 pages inc. 43 photos and 5 color profiles. "Dogfight sur Meuse: L'escadrille N 3 à Verdun, février-mai 1916 (1<sup>er</sup> partie)" 13 pages inc. 4 photos, 3 color profiles (Nieuport XI), and a color painting of a Nieuport XI in combat with a Fokker monoplane. "La Hawker Fury dans les Balkans (fin)" 16 pages inc. 16 photos, one color 3-view, one color 2-view, and 8 color profiles. "Roman 82 (1<sup>er</sup> partie)" 21 pages inc. 27 photos, 5 color profiles, and 4 pages of color multi-view scale drawings of Ro.80 N° 01. "Amy Johnson, la romantique de l'air (fin)" 12 pages inc. 21 photos and one color profile (DH 88 Comet (c/n 1994) G-ACSP *Black Magic*).





# *FMA I.Ae. 30 Ñancú*

## *The Argentine Destroyer*

Santiago Rivas

*The Fábrica Militar de Aviones (FMA) I.Ae.30 Ñancú, was the most powerful piston-engine fighter built in all of Latin America. Unfortunately, it's serial production was made unnecessary by the introduction of jet aircraft.*

After WWII, the victorious countries began building planes incorporating all the experiences acquired during the war. Argentina, which had been neutral during most of the war, had supported the Allied countries with food and they had built up a large surplus of foreign exchange. To this environment add the triumph of General Juan Domingo Perón in the election of 1945. He started immediately to accelerate the industrial and technological development in Argentina. To make possible this development, the government decided to contract engineers and technicians of the defeated countries, most of whom had designed some of the most advanced weapons of the war. Shortly after the war ended, Argentine authorities began to contract some of them, offering the possibilities to work in a country where there were no bad feelings against them.

Among the ones who migrated to Argentina was Italian designer Cesare Pallavicino, who had worked for Carponi-Cantieri during the war. Pallavicino arrived to Argentina in 1946 contracted by Fábrica Militar de Aviones (FMA) carrying with him some proposals for advanced aircraft. One of them was accepted. It was an all-weather, day and night interceptor or escort fighter that could be used to escort the Avro Lancaster and Lincoln strategic bombers that the Fuerza Aérea Argentina (FAA) had recently acquired.

On 5 June 1947, the División Proyectos Especiales 2 (2<sup>nd</sup> Special Project Division) was created inside the Instituto Aerotécnico (I.Ae.). This Division was in charge of the design of aircraft for the FMA. Their first design received the designation I.Ae.30 and later was baptized Ñancú, the Indian name for a Patagonian eagle.

Because complete design project was presented by Pallavicino, works progressed quickly. Construction plans were started in July, followed by a

scale wooden mockup. During August and September, the machine tools and jigs for the construction of the first prototype were built, and by the end of the year construction of the main parts began. Although initially it was planned to build two prototypes, the decision to make to build a third prototype. By the end of 1947, one fuselage was 30 per cent complete and the other two were 10 per cent complete.

The development of the Ñancú led to the cancellation of the I.Ae.28 project, which was to have been a version of the I.Ae.24 Calquín with Rolls Royce Merlin engines in place of the Pratt & Whitney engines of the original. The I.Ae.28 was similar in performance to the British de Havilland Mosquito, and it was planned to construct 100 examples in addition to the one hundred I.Ae.24 already built. However, since the performance of the I.Ae.28 was inferior to that of the Ñancú, it was decided to go ahead with the I.Ae.30.

The Ñancú was a twin-engine all metal plane with two Rolls Royce Merlin 134/135 of 2035 hp each. It was similar to the Focke Wulf Fw-187 Falke (developer by Kurt Tank who was now working at the FMA) and the de Havilland Hornet.

### **The Ñancú Prototype Flies**

On 9 July 1948, the first prototype left the plant to begin ground testing., At the controls was 1<sup>st</sup> Lieutenant Guillermo E. O. "Pincho" Weiss - chief test pilots of the Instituto Aerotécnico, The engines were started and their controls tested; the control surfaces, brakes, and flaps tested, verification of the flight instruments verified..

On 17 July (according to the Official Historical Book of the FMA) at 11:00 of the morning, the Ñancú left the prototype hangar, was fueled, and 1<sup>st</sup> Lt Weiss got inside. After starting the engines, the plane taxied to the grass runway, and took off after only 300

meters. After taking off, the landing gear were retracted, and evaluations began while flying close to the plant. After almost one hour of flight, during which Weiss had established the stall occurred at 155 km/h, he prepared to land. He lowered the landing gear and flaps and landed successfully. The prototype received the Argentine Air Force serial I-101, but it was never painted on the plane.

Because of the success of the first flight and a few more in the following days, it was decided to fly the Ñancú and the I.Ae.27 Pulqui (the first Southern Hemisphere jet) to Buenos Aires for presentation before President Perón. At 1320 hours on August 7, the Ñancú took off from Córdoba to fly to Buenos Aires. At 14:15, was seen heading northwest at high speed and at about 400 meters altitude. It arrived at Buenos Aires at 1430 hours after flying more than 700 kilometers, breaking the speed record for this route for a piston-engine plane. This record still stands today. The plane had flown at a cruise speed of an average 648 km/h reaching, thanks to the favorable winds, a top speed of 780 km/h with 60 per cent power at an altitude of 5600 meters.

On this flight, the cruise speed was 30 km/h higher than the one predicted. The predicted maximum speed of 750 km/h was also exceeded by 30 km/h. There were no problems encountered during the flight, showing the excellent design of the plane.

The following day, the plane was presented, together with the Pulqui and a Vickers Viking, to Perón, who complemented Pallavicino for the development of the Ñancú.

### **Plans for the Ñancú to fly the Atlantic**

Because of the outstanding results obtained on these tests, it was decided to show the Ñancú at the IX Exhibition of the SBAC at Farnborough, England, that was to take place between the 7<sup>th</sup> and 12<sup>th</sup> of September 1948. This was designed to show the world the achievements of the Argentine aeronautical industry. The Ñancú would be the first foreign-construction plane to participate in the show, that had been reserved until then for only British material.

The plane would be escorted by the Avro Lancastrians T-65 and T-66 of the FAA with stops at Buenos Aires, Rio de Janeiro, Natal, Dakar, Canary Islands, and Madrid – arriving at London on the last days of August. This would be the first Atlantic crossing by plane of Latin American design. After the

exhibition, the Ñancú would be flown to Paris and Rome to show it to the air forces of those countries, who at that time, had no aircraft matching the performances of the Ñancú.

For the Atlantic crossing, the plane was to receive an additional fuel tank under the central part of the fuselage increasing the range by more than 5000 km. Also, the engines and all the structure were revised to bring more safety to the flight.

Although the presidential decree authorizing the flight had been signed, the flight was cancelled because of the lack of time. The flight had been authorized in the middle of August and the FMA had only three weeks to install the auxiliary tanks, test the plane, and make the ferry flight to Europe. Furthermore, the first flight of the Ñancú had been less than 45 days earlier. Also, Pallavicino firmly opposed the flight because he considers the I.Ae.30 not ready for a flight of this magnitude and the pilots didn't yet know enough about the flight characteristics of the plane. He even threatened to resign his post.

### **High altitude tests and modification**

At that time, it was proposed to build 210 examples of the Ñancú to replace the Calquin, thereby augmenting considerably the combat capacity of the Fuerza Aérea Argentina. (The FAA had also started to receive the first of 100 Gloster Meteor F.Mk.IV.) Pallavicino was asked to improve the design of the Ñancú by including all that had been learned on the test flights. These improvements would be included in the second prototype that was under construction.

In October, with the intention of testing the Ñancú at high altitudes, it was decided to show the Ñancú at the Industrial Exhibition at La Paz, Bolivia. Test pilot Weiss took the I.Ae.30 to the airport of El Alto, La Paz, which was at 13,404 feet (4,085 meters) above sea level. During the flight to Bolivia, the Ñancú flew over the Grand Prix Auto Show that was taking place in northern Argentina, calling attention of the Ñancú to the people.

During the exhibition in Bolivia, the plane made some dive tests, reaching a maximum speed of 900 km/h, showing that it was the equal to some jet planes of time.

On the return, some modifications were made: The canopy was changed to one with a three-piece armored windscreen. Also, the tail received some

minor modifications to improve lateral control. To improve stability, spring tabs were added to the ailerons and rudder, and the controls were improved because they had been heavy at high speeds. The controls were not hydraulic.

In April of 1949, test flights began again. These included German engineer Kurt Tank, who was working on the jet plane I.Ae.33 Pulqui II. (Tank had made some flights on the Ñancú in 1948.) Tank reported favorably on the Ñancú and suggested some improvements to be included on the second prototype.

### **The second prototype**

The second prototype retained the basic shape of the first prototype, except the horizontal stabilizer was mounted low on the vertical stabilizer. This avoided the need for the two-piece rudder required by the first prototype. Also, the fin was redesigned to improve lateral control. The cockpit was also redesigned with a three-piece armored windshield and a modern canopy, similar to other advanced combat planes of the times, improving the pilot's visibility. The nose transparency was deleted and two muzzle blast tubes were mounted for the four 20 mm guns – two on each side of the fuselage.

Although the second prototype was 80 percent complete including the engines, further work was abandoned because of the superior performance promised by the jet-powered Pulqui II. Design work on training, attack, and night-fighter versions of the Ñancú was also stopped.

### **The end of the Ñancú**

The prototype continued to fly until the end of 1949. During a landing during a test flight, captain Carlos Bergaglio let the plane stall without noticing the plane was too high from the runway. When he tried to pull the nose up, the Ñancú ended inverted. A hole in the ground had to be dug to get the pilot from the plane – he was unhurt. Although the plane could be repaired, the lack of interest in the project determined that it should be scrapped along with the second prototype.

### **The plane**

The I.Ae.30 Ñancú was a twin-engine, single-seat, all-metal, low wing monoplane. The fuselage, of almost triangular shape cross section, was of semi-monocoque construction. It was divided into two

sections, fore and aft, constructed separately, and joined at the front spar.

The cantilever wing had two spars that were each one piece from tip to tip. They were fitted with ailerons and high-lift flaps. The radiators were built into the leading edge of the wings.

The vertical stabilizer had two spars and was built integral with the aft fuselage. The horizontal stabilizer had two spars and was mounted halfway up the vertical stabilizer. The elevators and rudder were completely metal with automatic spring tabs.

The undercarriage was retractable. During retraction, the gear turned to lie flat at the rear of the engine nacelle. Each wheel had two oleo-pneumatic shock absorbers. The tail wheel was also retractable.

The main gear doors were open only during retraction and extension and were operated by a system of levers driven by the gear itself. For the first test flights, the prototype didn't have any doors. Later, the two aft doors were fitted. The forward doors were fitted even later.

The plane was equipped for night flying with navigation equipment, a Bendix radio, and ADF. Electrical power was provided by a 1450 watt generator on the port engine. This was connected with two batteries of 12 volt 40 amp each.

The planned armament was four Oerlikon, later Hispano Suiza 804, 20 mm cannons on the sides of the fuselage, one bomb of up to 250kg under the fuselage, and five 83 mm rockets under each wing. These last two weapons provided a limited fighter-bomber role. Also studied was the possibility of carrying two additional 20 mm guns under the fuselage in place of an auxiliary tank. The first prototype was not fitted with any armament, but the second prototype had the four 20 mm guns.

The nose of the prototype was of Plexiglas to improve downward visibility, but the transparent nose was deleted from the second prototype.

### **Other proposals**

In March of 1949, Pallavicino proposed to transform the Ñancú into a twin-engine jet fighter. He replaced the two Rolls Royce Merlin engines with two Derwent V engines, enlarged the fuselage to accommodate two crew members and a 750 liter fuel tank, and converted the landing gear to a tricycle type. The rest of the airframe remained unchanged. These changes reduced the empty weight by 25 per cent so

there was room for more fuel. The armament remained four 20 mm cannons. The result was a plane very similar to the Gloster Meteor.

Together with this proposal, in April of the same year, Pallavicino proposed a twin-engine, two-seat bomber based on the earlier project, but bigger and heavier. The tail and wing were enlarged and the landing gear was of the bicycle type with two wheels under the fuselage and two small wheels below the engines. The co pilot and bombardier would be in the

nose or behind the pilot. The plane had three fuel tanks in the fuselage and eight in the wing, and it would have had a bomb bay for up to 2,000 kilos of bombs. In addition to four 20 mm cannons, it could carry up to twenty 75 mm rockets.

Though these projects were analyzed by the FMA, they were not accepted and they never had any official designations.

Santiago Rivas (#1739), Argentina.

### Specifications FMA I.Ae.30 Ñancú

Length	11,52m
Wingspan	15m
Wing surface	35.32m <sup>2</sup>
Height in flying attitude	5.16m
Empty weight without armament	5,585kg
Empty weight with armament	6,208kg
Payload	1,392kg
MTOW	8,755kg
Fuel capacity without extra tanks	3,592litros
Engines	2 Rolls Royce Merlin 134/135 V12 of 2035HP (1517KW) each
Propellers	2 de Havilland 4/4000/5" four bladed, 12ft diameter, constant speed of hydromatic control.
Service ceiling	8,000m, 26,250ft
Maximum level speed	780km/h
Maximum dive speed	900km/h
Cruise speed	648km/h
Endurance	6 hours at 500km/h
Action radius	1,500km
Range without extra tanks	2,700km
Range with extra tanks	5,000km
Climb to 5,000 meters (16,400ft)	5 minutes

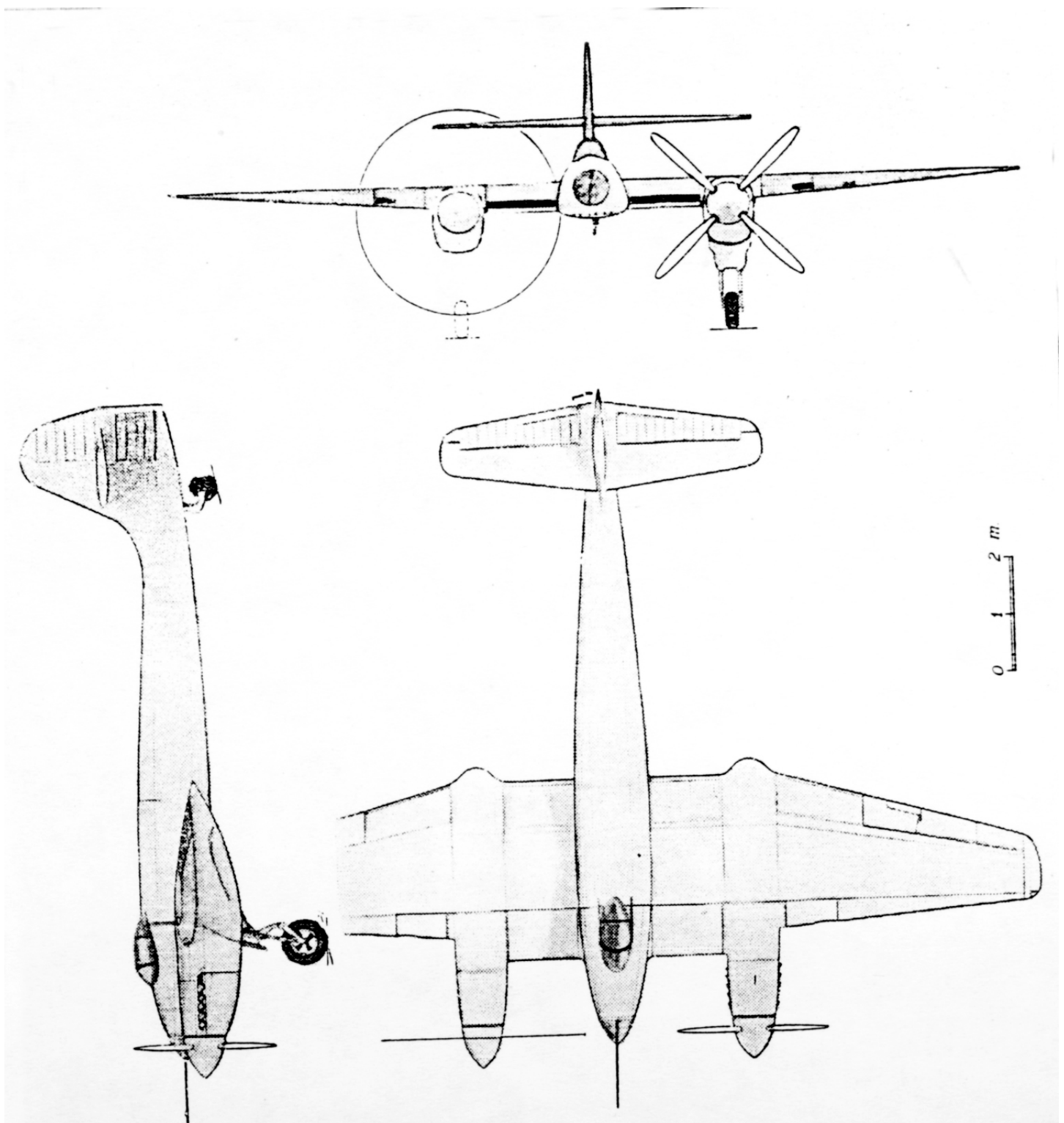


The Ñancú with Capt. Weiss at the controls on the tarmac of the Fábrica Militar de Aviones.



Kart Tank taxiing the I.Ae.30 during a test flight. Note the landing gear front doors are installed.





# Bloch MB 151s in Greek Service

Douglas C. Dildy

Surprisingly, as the Armée de l’Air was in the midst of an urgent expansion of its fighter forces in late 1939, the French government agreed to sell to Greece 25 Bloch MB 151s. The first nine were delivered in April the next year, serialled D-171 through D-179 (D standing for *Dioxeos* or ‘fighter’). Rising concern about the fearfully anticipated Nazi offensive resulted in the French government withholding further deliveries. Moreover, the German invasion promptly shut off the supply of spare parts, so – within six months – only six Blochs remained serviceable. (Note 1)

The new fighters were the most modern in the *Elleniki Vassiliki Aeroporia* (EVA or Royal Hellenic Air Force) and were used to establish the No. 24 *Mira Dioxeos* (Fighter Squadron), based at Thriassion Eleusinos (aka Eleusis) airfield near Athens, commanded by Capt A. Anagnostopoulos. Like all Continental air arms of the day, the EVA was primarily a tactical – or “army support” – air force, having as its primary combat equipment some 36 Polish-built PZL P.24F/G fixed gear, gull-wing fighters, all initially being based at Salonika’s Sedes airfield in north eastern Greece, facing the primary threat: Bulgaria. The establishment of 24 Mira was the sole attempt to provide strategic fighter defence for the Greek capital and, correspondingly, was assigned to the Anti-Aircraft Command.

On 28 October 1940, as seven Italian army divisions crossed Greece’s Albanian frontier the *Regia Aeronautica* (Italian Royal Air Force or RA – See Note 2) signalled the beginning of Mussolini’s offensive by sending a formation of old, fixed-gear trimotor Savoia-Marchetti SM.81 *Pipistrello* (‘Bat’) bombers to strike several important sites. Crossing central Greece at 20,000ft altitude, the formation (from 38° Stormo BT) dropping bombs near Tatoi (north of Athens) – home of the EVA’s academy and flight school – and turned south to try to hit Pireaus (Athen’s port), the Corinth Canal, and the western city of Patras. From Eleusis airfield, Flying Officer (F/O) George Doukas led aloft a flight of three MB 151s, but the alarm/scramble came so late that the Blochs were unable to reach the raiders before they were out of range.

The Italian offensive quickly ground to a halt in the face of fierce resistance in the rugged mountains of the Epirus. There were no further raids on targets in eastern Greece because the RA and EVA were locked in a bitter struggle over the front-lines. The RAF joined the fight with three squadrons (No. 80 Sqn with Gladiators and Nos. 30 and 84 Sqs with Blenheims) arriving in early November. But, despite a determined counter-offensive, the conflict devolved into a stalemate with arrival of the first winter storms. Attrition of the EVA’s PZL fighters became such that all three squadrons were needed at the front, so on 15 January 1941, 24 Mira – now commanded by Flight Lieutenant (F/Lt) Michalis Savellos – was transferred to Sedes, to defend the vital port of Salonika, while a newly-arrived squadron of RAF Gladiators (No. 112 Sqn) assumed the air defence of Athens. Salonika, the second largest city in Greece, contained several important factories and through its port were processed the Greek infantry units headed to the frontlines.

Realizing the city’s strategic significance, ten days later the RA began a sporadic series of attacks against Salonika, first sending ten modern Cant Z1007bis trimotor bombers (50° Gruppo Autonomo BT) to strike the city’s port facilities. Savellos led his patrol aloft to intercept, catching the raiders, and claimed a “kill” before his 7.5mm MAC machine guns jammed. (No RA bombers were lost to or damaged by fighters.) No. 24 Mira’s first real success was on 9 February when Salonika was again attacked by Cant Z1007bis bombers (47° Stormo BT). Again the Blochs caught the raiders and this time Flight Sergeant (F/Sgt) Eleftherios Smyrniotopoulos succeeded in damaging one, although another ‘kill’ was claimed.

When Mussolini’s spring offensive collapsed, the Greeks were soon driving the Italians back into Albania. This promising period ended abruptly – and tragically – on 6 April 1941 when Hitler came to Mussolini’s rescue, sending six divisions across Greece’s Bulgarian frontier, supported by 414 warplanes (Fliegerkorps VIII). Suddenly defending against two fronts, the Greeks mustered only 40

serviceable combat aircraft while their RAF allies had 80 aeroplanes operational.

No. 24 Mira scrambled at the first alarm and F/O Panayotis Ekonomopoulos intercepted a Do 17 reconnaissance machine [2.(F)/11] and successfully shot it down, the machine reportedly crashing east of Salonika near the estuary of the Strymónas River. The next day F/Sgt Smyrniotopoulos scrambled to intercept another Do 17, emptying his guns at the violently weaving target. The Dornier was damaged and force-landed near the Evros River on the Turkish border. The Bloch was damaged by return fire, severing oil lines, Smyrniotopoulos landing back at Sedes with some difficulty.

With four divisions (one panzer, one infantry and two mountain) bearing down on Salonika, the Greek army withdrew to the Aliakmon River, north of Mount Olympus, and the EVA evacuated Sedes airfield on 8 April. No. 24 Mira pilots flew out three MB 151s, joining six P.24s (22 Mira) and three Gladiators (21 Mira) at Kalabaka's Vissiliki airfield. (Note 3) From their new base, on 10 April, Ekonomopoulos intercepted a Cant Z1007bis reconnaissance aircraft and claimed it shot down.

Five days later, the Luftwaffe launched a large series of morning attacks, including 18 Stukas that flew from Libya to dive-bomb Trikala, a large city in

central Greece strategically located between the Epirus and Macedonian fronts. The EVA fighters at Kalabaka scrambled to intercept, two PZLs pursuing the Stukas in their dives and claimed one shot down. At that moment the 20 escorting Bf 109 Es (II./JG 27) attacked, shooting down one Gladiator, one P.24, and one MB 151. The Bloch was flown by Sgt George Mokkas (flying D-172) who was attacked by several Messerschmitts and was quickly shot down and killed. Mokkas, the last EVA fighter pilot to die in the defence of mainland Greece, was shot down by Oblt Gustav Rödel as his 15<sup>th</sup> victory.

The next day, with the ground defences crumbling before the Wehrmacht onslaught, the EVA withdrew its remaining fighters – 11 PZLs, nine Gladiators, and two MB 151s (D-174 and D-176) to Amphiklia's Lodi airfield. This new base was attacked on 19 April, with Bf 109s destroying all but four P.24s. After being withdrawn to Argos airfield in the Peloponnese, three of these were destroyed by further strafing, the last subsequently being evacuated to Crete. Two days later the Greek armies on both fronts surrendered – all of Greece's MB 151s had been destroyed or were abandoned in the defeat.

Doug Dildy (#844), USA.

## Endnotes

1. The unserviceable machines were D-171, D-177 and D-178.

2. The RA began the campaign with 372 combat aircraft in the region: 187 stationed in Albania and 185 based in southern Italy and assigned to 4a Zona Aerea

Territoriale (4a ZAT, or Territorial Air Zone).

3. These were D-172, D-174, and D-176. Additionally, D-173 was unserviceable at Larissa airfield. It was destroyed in a Luftwaffe strafing attack on 15

April 1940. Additionally, 23 Mira, which was based at Larissa airfield with eight PZL P.24s, had just moved to Tanagra airfield to receive 9 Gloster Gladiators from the RAF as replacements.

## Sources

1. John Carr, *On Spartan Wings: The Royal Hellenic Air Force in World War Two* (Barnsley, UK: Pen Sword Books Ltd, 2012).

2. Pierre Leyvastre, "Bloch's Fighters: The Contentious

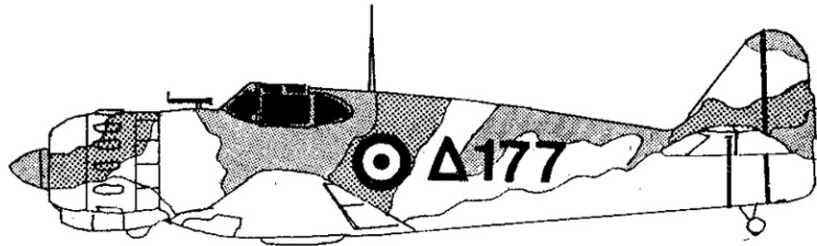
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3. Alain Pelletier, *French Fighters of World War II in Action* (Carrollton, TX: Squadron/Signal Publications, 2002).

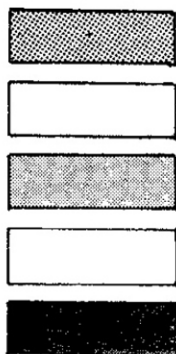
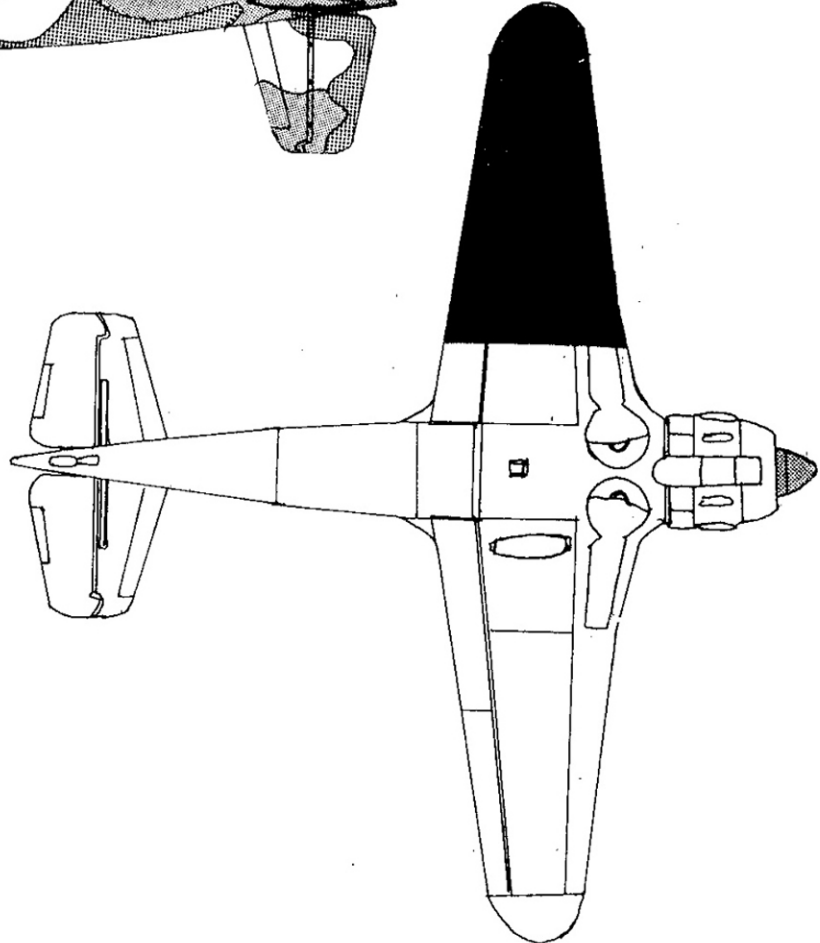
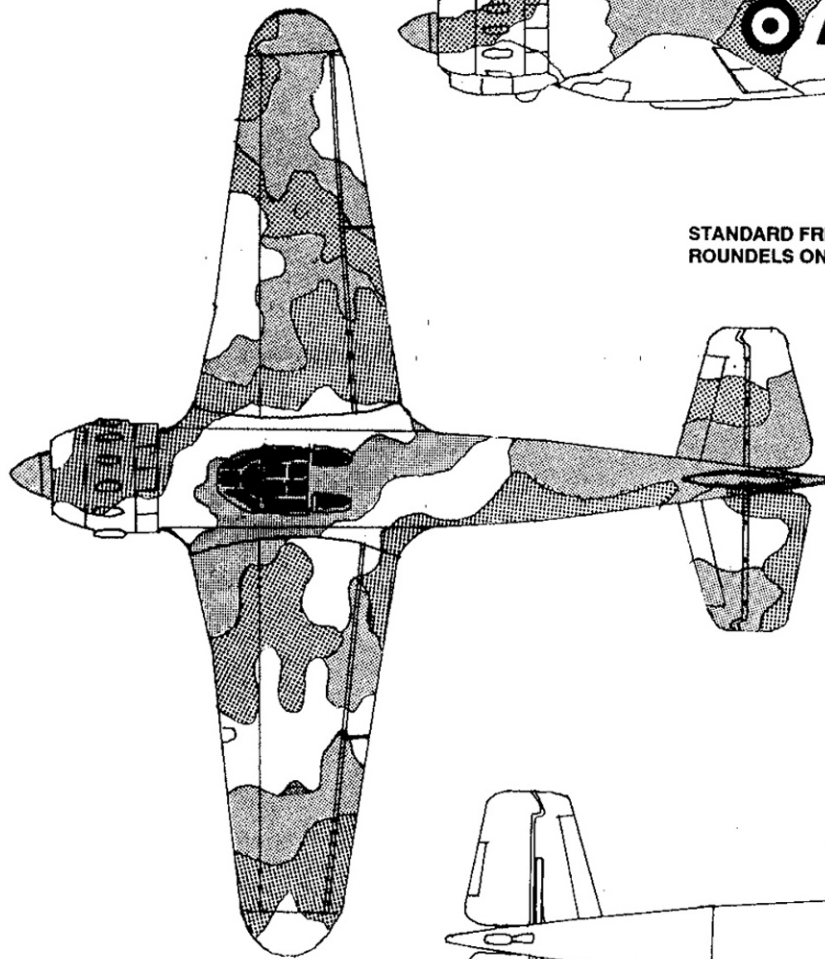
4. Christopher Shores and Brian Cull, *Air War for Yugoslavia Greece and Crete 1940-41* (London: Grub Street Press, 1987)

Photos on page 35  
All photos via the author.

# **BLOCH MB.152**



**STANDARD FRENCH AIR FORCE CAMOUFLAGE  
ROUNDELS ONLY ON FUSELAGE**



**CHOCOLATE**  
**BLUE GREY**  
**KHAKI**  
**LIGHT GREY**  
**BLACK**

Drawings by: E. Korobilis



# Yugoslav Bristol Blenheims

Simon Wolf, Dave Clark and Ley Reynolds.

[Editor's note: This article first appeared in the Australian Plastic Modeller's Association's journal (APAM) issue 2015/4. It is reproduced here with permission of the authors.]

[Authots' note: Photographs/notes on Yugoslav aircraft supplied by Aleksandar Ognjevic and colour artwork by Ognjan M. Petrovic.]

## Historical Notes

When the Bristol Type 142 first flew on 12th of April 1935 having a maximum speed of 307mph (faster than contemporary RAF fighters) it was a "world beater" in its class but by 1st of September 1939 it was more akin to a "sitting duck" in operations over Europe. By then most UK-based Blenheim I's had been replaced by Mark IV's and sent to the Middle and Far East. There they suffered horrendous losses, these being made good with Mark IV's phased out by the RAF in the UK until they too were replaced by more modern (mainly American-built) types.

Four foreign countries purchased or were supplied with Blenheims:

- 1 Finland - eighteen Mark I's and twenty-four Mark IV's, with a further forty of the former and fifteen of the latter manufactured under licence,
- 2 Turkey - thirty Mark I's,
- 3 Romania – thirteen Mark I's supplied in a vain attempt to persuade that country to join the Allies rather than the Axis,
4. Yugoslavia – twenty-two Mark I's and forty manufactured under licence.

## Yugoslav Variants

The licence-built aircraft were known as Ikarus B.1's and were initially identical to the Bristol supplied machines, except that certain items of internal equipment and armament were to Yugoslav specifications. The last fourteen were powered by PZL-built Mercury engines. The twenty-fifth Ikarus machine, serial 3527 then remarked 3563, was converted to a B.4 – similar to a Blenheim Mark IV but with the extended nose designed by Ikarus based only on photographs of the Bristol product (the fuselage extension was reportedly 1.0m in

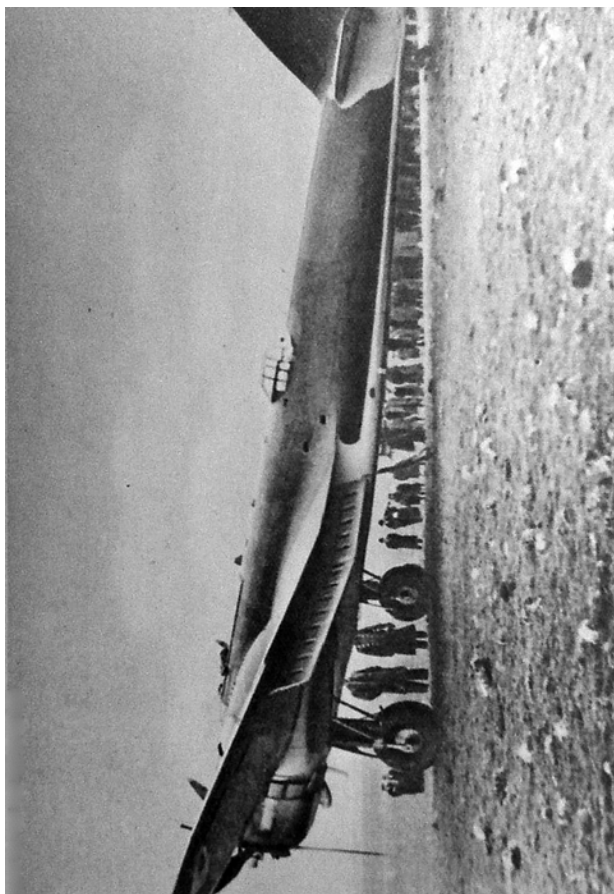
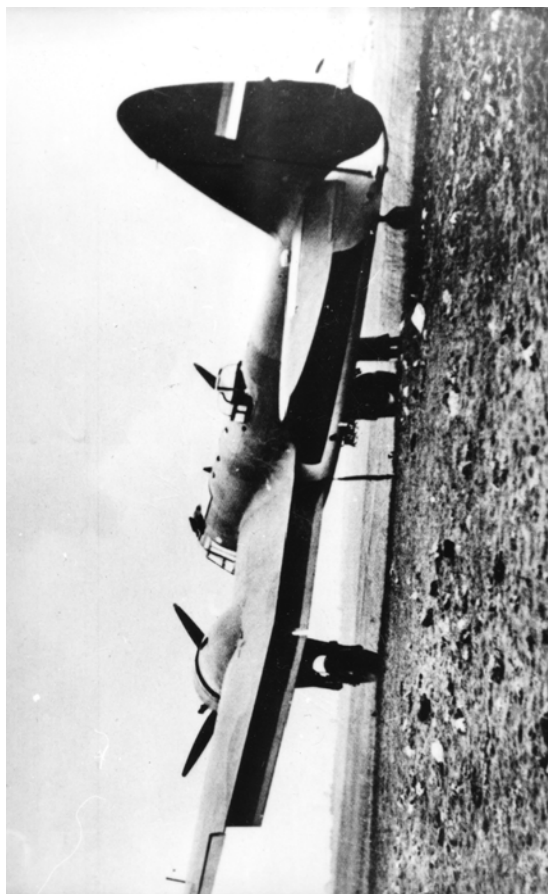
length rather than 0.87m on the Mark IV). Components for twenty B.4's were manufactured but none was completed before the German attack on 6th of April 1941 and some parts were then sold to Finland for use in there licence-built aircraft.

The Jugoslovenska Kraljevsko Ratno Vazduhoplovstvo early on came to the conclusion that the Mark I/B.1's defensive armament was totally inadequate and attempted to remedy this. To this end Ikarus modified B.1 serial 3528 thus:

- one 7.92mm M38 FN Browning machine gun in a bulged windscreen panel in the nose,
- an identical weapon firing through a ventral opening under the aft wing-root,
- a 12.7mm M39 Breda-SAFAT machine gun in a locally manufactured Teleoptik M.40SP dorsal turret (unhappily it appears that all technical documentation for this turret has been lost since then); the M39 was developed from the Browning Model 1919 and the resemblance can be seen in the accompanying sketch, which of course required the addition of a fourth crew member to man the ventral gun.

Work started on 62 modification sets but it appears only four B.1's had been completed before the German invasion (serials 3505, 3516, 3528 and 3548).

Details of this and the operational history of Yugoslav Blenheims 1937-58 can be found in "Bristol Blenheim – the Yugoslav Story" written by Aleksandar M. Ognjevic and published by Leadensky Books. It is available from the Aviation and Military Book Centre in the UK or the publishers, in both cases via the internet. It also covers Royal Air Force Blenheim operations over Yugoslavia; the type in Croatian, Romanian and Hungarian service; some details of Blenheims built in Finland using Ikarus components; and, finally, Blenheims in the post-war Yugoslav air force. This title is a "must" for any modeller with an interest in Blenheims and/or with more than a passing interest in the airwar over the Balkans. It is not cheap but with 160 pages, 200+ black/white photographs and 8 pages of colour profiles, it is certainly excellent value for money.



Bristol Blenheims Mk.I in service of Yugoslav Air Force (Aleksandar Ognjevic)

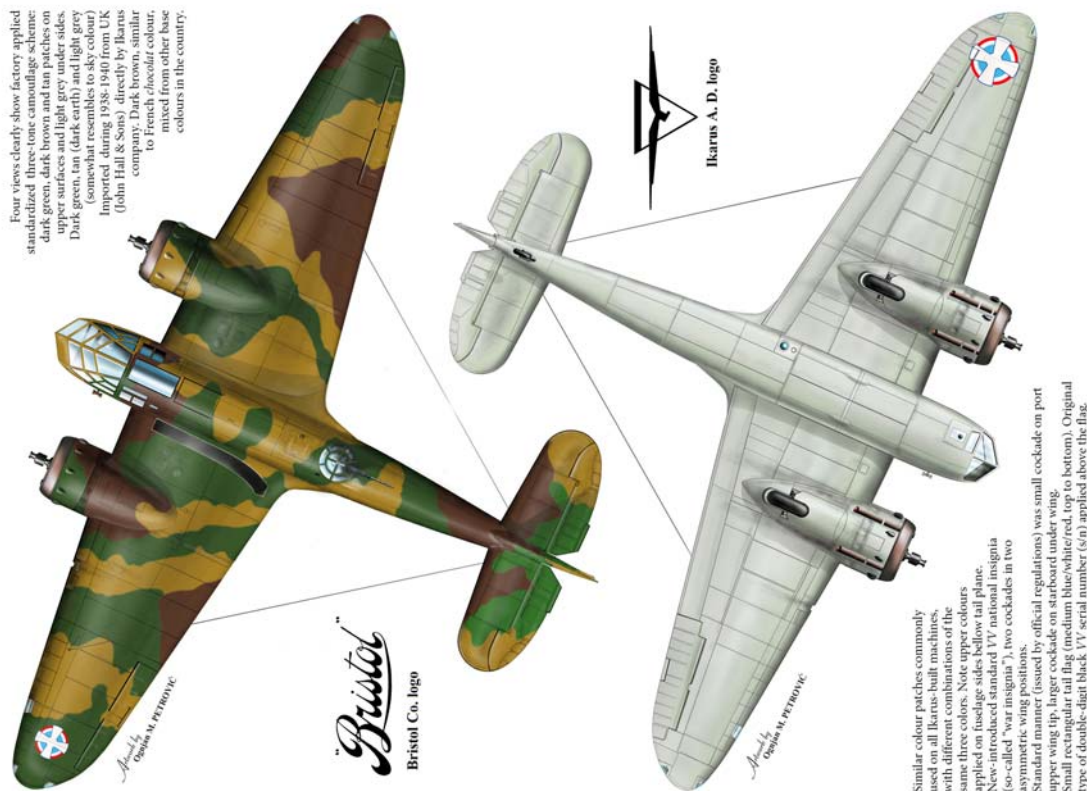


Table III  
Researched, drawn and written by Ogojan M. Petrovic, December 2013 - January 2014

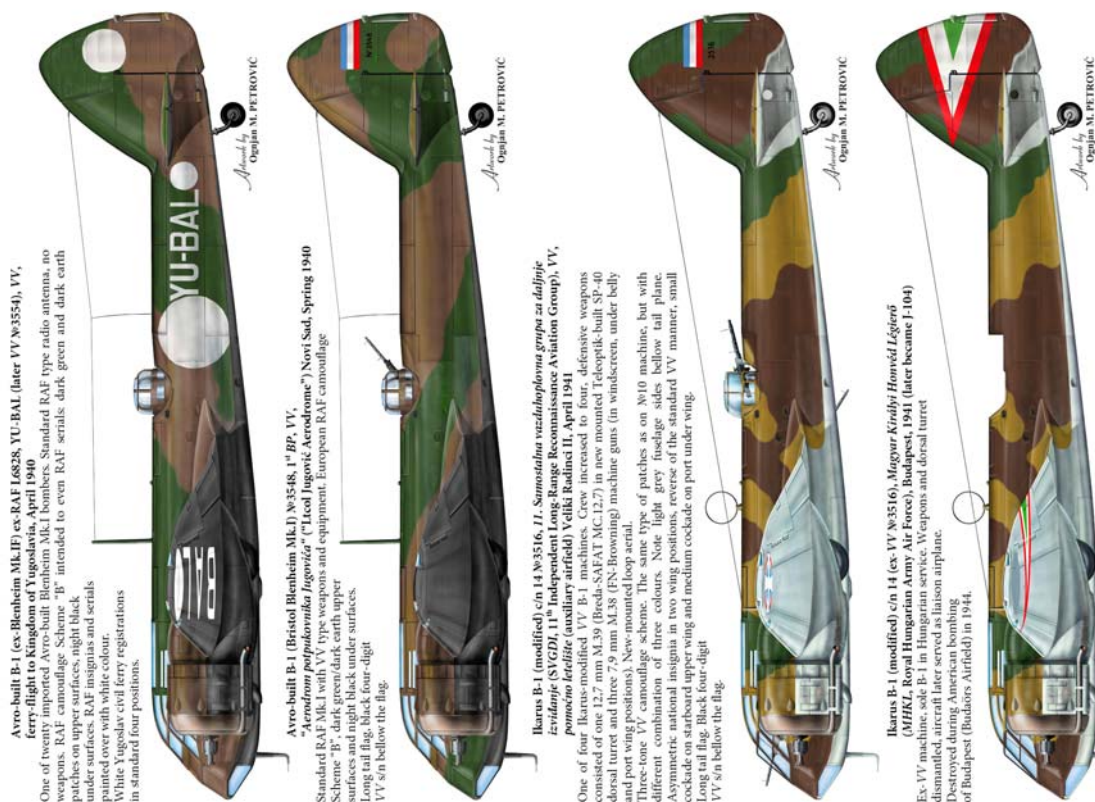


Table IV  
Researched, drawn and written by Ogojan M. Petrovic, December 2013 - January 2014

# Armstrong Whitworth AW. 16 in China

Ley Reynolds

## Historical Notes

The AW.16 was a single seat private venture fighter designed to meet both N.21/26 (naval) and F.9/26 (land-based) Specifications. Flight trials were held at A&AEE in 1930 but no

British orders were forthcoming, allegedly due to the unreliability of the Siddeley Panther engine. With the loss of much of Armstrong Whitworth's archives in the 1950's and '60's, there is much confusion about the number of AW.16's built – most British historians state only four were delivered to China but recent research by Chinese authors indicates that it was seventeen. Thus the most likely production run is:

- first prototype for British trials, serialised S1591, possibly later registered G-ACCD, converted into an AW Scimitar and delivered to Norway,
- second prototype registered A-2, then G-ABKF and used by the Cobham Aerial Circus for a tour of South Africa, possibly converted/delivered as above,
- eleven to the Kwangsi Air Force via Reiss Massey & Co. and delivered between December 1931 and December 1932,
- six to the Nanking Air Force via Far East Aviation Co. and delivered between July 1932 and May 1933.

Another theory is that two extra civil-registered examples were built and then converted into Scimitars. It seems that there was some revision of the design during prototype testing and/or the production run, resulting in detail differences, especially around the fin/rudder and the tailplane struts, which do not appear to have been fitted to the Chinese aircraft at least. Also the first prototype was fitted with at least two types of interplane struts. Some of these changes may well have been in connection with the development of the AW Scimitar.

Details of their combat use in China are not available but it is safe to assume that it was brief, possibly involving operations against various other warlord air forces during the conflicts that were endemic in the country at that time.

Photographs of the first two prototypes in their various guises are not particularly helpful as to colours/markings and these seem to have changed

over time, for some unknown reason. The illustrations hereafter show my interpretation of same.

## Illustrations

1. The first AW.16 prototype in its initial scheme – very dark (blue or black?) fuselage top decking, cabane struts and top of wheel spats; white pin-stripe; otherwise overall light colour (blue or grey?); black serials with white outline where on coloured surface; standard red/white/blue roundels and rudder stripes.

2. The first AW.16 prototype in another scheme (probably when under test for the N21/26 Specification) – very dark (blue or black?) fuselage top decking, cabane and interplane struts, top of wheel spats, cowlings, crankcase, propeller and fin (note revised shape); white pin stripe; otherwise silver-dope fabric and polished natural metal; black serials and red/white/blue markings as above. Note arrestor hook and that the interplane struts were splayed out much more than in Scheme 1.

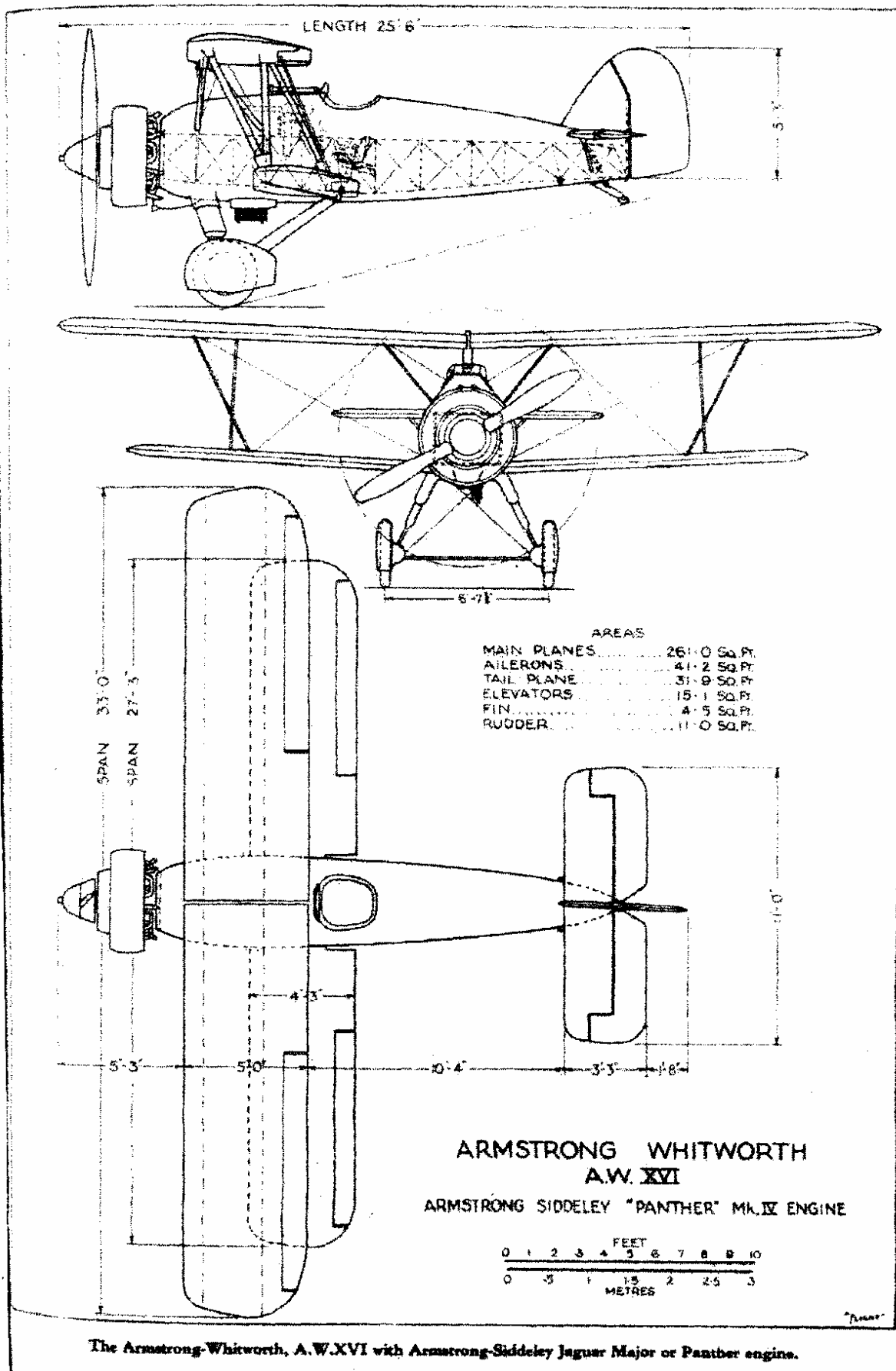
3. The second AW.16 prototype in South Africa – dark blue fuselage top decking, cabane struts and top of wheel spats; white pin stripe, fuselage registration and lettering on fin (shown black for clarity); red fuselage, fin and rudder; silver-dope wings, tailplanes, interplane struts and undercarriage; black registration underwing.

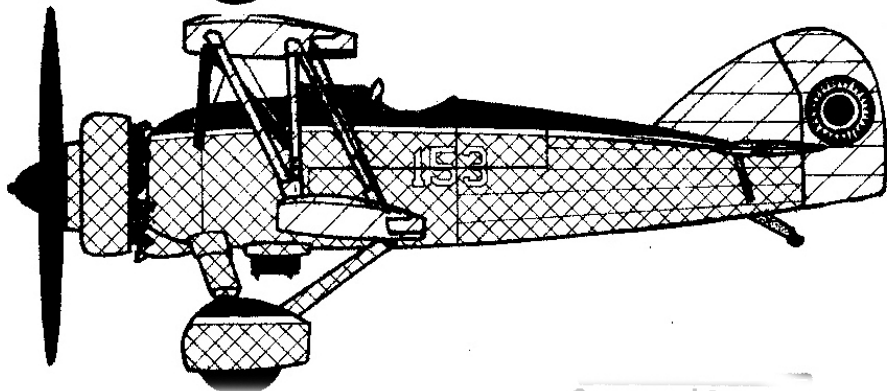
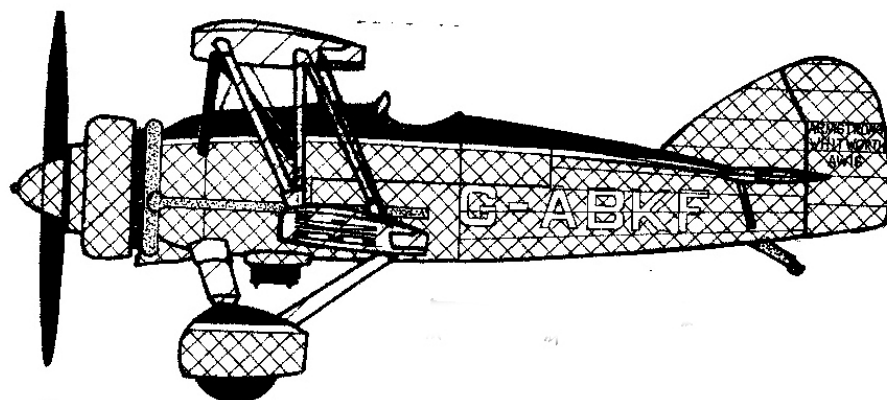
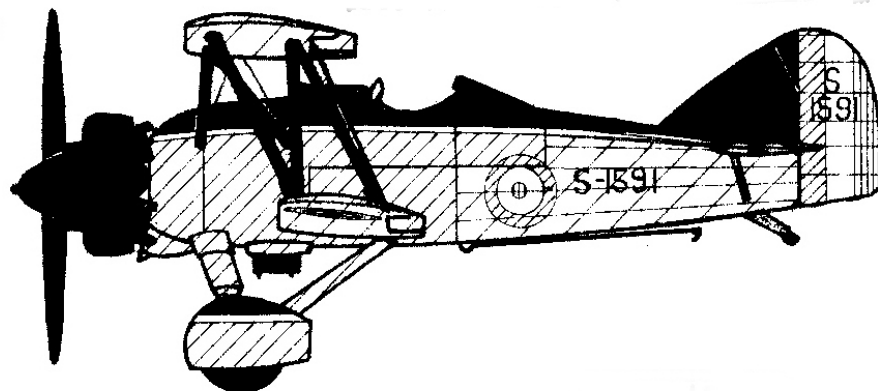
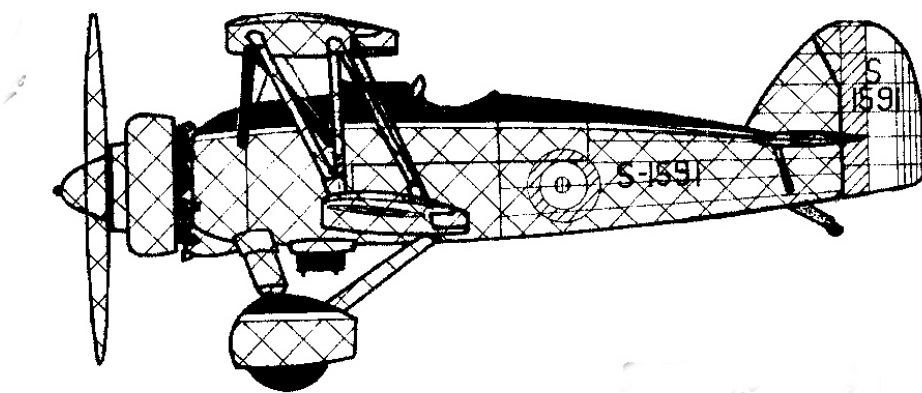
4. Production AW.16, Nanking Air Force – black fuselage top decking, cabane struts and top of wheel spats; white pin stripe and "153"; dark green fuselage and undercarriage; silver-dope wings, interplane struts, tailplanes, fin and rudder; blue/white "sun disc" on rudder possibly with a red outline.

Ley Reynolds (#), Australia.

Thanks to Simon Phillipson, Richard Hopkins, Ray Watkins and Lance Fishman for their invaluable help in tracking down the civil colour schemes.







# The Tuna Wars

Jorge Degado Panchana

## “Law of the Sea Convention”

In the 1960s, a series of altercations occurred between the South American countries boarding on the Pacific Ocean (Chile, Peru, and Ecuador) and countries whose fishing ships were constantly disregarding the maritime exclusion zones claimed by these countries. These conflicts finally led to the United Nations’ “Law of the Sea Convention” (Note 1) which contains the provision of setting up a 200 nautical mile “Economic Exclusion Zone” which would require companies to obtain permission to fish in these areas for commercial purposes.

Between 1963 and 1970, Ecuador was involved in a ‘conflict’ with the US in what, in the annals of history became known as the ‘Tuna War’. In fact, this was not a war *per se*, but it did effect Ecuador-US relations.

The conflict had its beginning in 1963 when a California fishing boat was captured in Ecuadorian territorial waters. The captured boat was fined by the local authorities for unlawful fishing.

By 1968, the number of US ships that Ecuador had captured was such that fishing companies, based mainly in California, filed a complaint with the US government. The US retaliated with a temporary suspension of sale of military equipment to Ecuador to bring pressure on Ecuador to cease the capture of the boats of US companies. This suspension did not last long, for by July 1969 military sales were resumed. However, US officials kept pressuring Ecuador (Peru and Chile as well), to let the companies fish in their waters.

Meanwhile, Aristole Onassis, whose fishing fleet had for years engaged in unauthorized fishing in these waters, initiated a plan to hire warships to escort his vessels during their fishing trips. He declared he would protect this interests without specifying what he meant by ‘protect’.

## Ecuadorian Naval vs Illegal Fishing Boats

On the morning of 14 February 1970, Saint Valentines Day, Cessna Skynight 320E, AN-101 of the Ecuadorian Navy, was patrolling the Gulf of Guayaquil. (Note 2) The pilot was Lieutenant Commander Jaime RR Puente and the co-pilot was

Frigate Lieutenant Romulo Ramirez Donoso. At the same time, but in a different area, another Naval plane, a Cessna Cardinal 177 AN-201, piloted by Ensign Jaime Paez S. with First Junior Officer Luis Albuja as co-pilot. The commander of the First Naval Zone had ordered these air patrols because of reported sightings of unauthorized fishing vessels in Ecuadorian waters.

Around 0715, the pilot of AN-101 communicated with the crew of AN-201 indicating that they had made visual contact with three fishing boats identified as the *San Juan*, *Hornet*, and *Lexington*. These boats were approximately 30 miles west of the Santa Clara Islands at the entrance to the Gulf of Guayaquil.

Naval headquarters ordered the Ecuadorian armed patrol boat *Quito* to the coordinates indicated by the crew of AN-101. At 0930, the *Quito* reported it had radar contact on the targets and was proceeding at maximum speed to intercept them. As AN-201 was running low on fuel, the crew was ordered to proceed to the city of Machala where they were to refuel and go back on patrol. Meanwhile, AN-101 flew to Guayaquil to refuel - it had been flying for more than 2 hours 45 minutes.

When AN-201 arrived over Machala, the pilot receives a communication from the *Quito*, which requested immediate air assistance for the fishing ships had changed course, increased speed, and were moving away from the patrol boat. Ensign Paez tried to communicate with Cap. Puente in AN-101, but was unsuccessful. He then contacted the Naval Base at Salinas requesting that the message from the *Quito* be transmitted to AN-101.

By now, Ensign Paez in AN-201 had to land at Machala to refuel. During landing, the aircraft suffered damage to the tail section making it impossible to get back to the air.

Meanwhile, AN-101 had landed at Guayaquil. Apparently Cap. Puente in AN-101 had received the message sent by way of Navy Base Salinas, for he refueled in a rush. Despite having some ignition problems, AN-101 departed in the direction where they had being requested.

The next thing we know about AN-101 is a report from the fishing trawler *Venus* that reported they

sighted an airplane flying a few meters above the sea with its wings oscillating up and down. Then the right wing struck in the water and the aircraft crashed into the sea. The *Venus* which was about 3 miles from the crash, put on full speed to reach the site of the impact as quickly as possible. When they arrived at the spot, they found a large patch of oil and they could see the aircraft at a depth of about 10 meters slowly disappearing. They retrieved only a piece of the wing, two life inflated life jackets, a number of plastic bags, and a piece of the engine cover with the inscription "Tturbo System". The site of the accident was about 40 miles west of Punta de Piedra.

The Commander of the Navy, Rear Admiral Jorge Cruz Polanco, order a SAR operation by air and sea which also involved the Ecuadorian Air Force. Days passed and search operations continued, but despite all efforts, the plane and its crew were never found. There are no clues on what had happened to AN-101. Many hypotheses have been presented. Some believe that AN-101 was struck by a missile fired from the fishing boats. This is an assumption that only the recovery of the aircraft could have clarified.

### **The Tuna War Escalates**

On February 24, near the Galapagos Island, Japanese fishing boats *Salyo Maru* and *Peruand Toka* were captured and taken to the city Manta.

On February 27, seven miles off Ancon on the Santa Elena peninsula, a fishing boat flying the American flag, the *Panama City*, was captured. The same day, more fishing boats were captured in the "Day Island" including the *Vida* of Panamanian registration. Some had expired licenses and some were carrying three time more tuna that was authorized.

The Ecuadorian navy now had impounded a total of 28 fishing boats from US and other countries.. US sales of miliary equipment were again suspended as it was argued that warships built with tax payer's

money were being used to capture US ships. Further aid to Ecuador was put under "analysis". On February 1, Ecuador ordered the US military mission out of the country.

A serious incident took place when an American cargo ship, 600 miles from the coast of Ecuador, was stopped by an Ecuadorian warship which fired warning shots across its bow. However, it was allowed to continue without further incidents. The apology demanded by the US State Department was given but without an explanation of the incident.

At this time, the American Tuna Boat Association and the Docker's unions tried to boycott Ecuadorian products arriving at US ports. By 1972, the fines for the captured fishing boats totalled \$4 million dollars.

### **The Tuna Wars End**

The USA proposed to form a "regional partnership" in the Pacific in which the members recognize the right of other members of a 200-mile zone for the conservation of fishery resources. Eventually all the agents and owners of tuna fishing boats pulled together, thereby ending the tuna war in favour of the three South American countries of the South Pacific.

### **Epilogue**

On February 24, 1970, Cardinal 177 AN-201 was written off while taking off from the city of Manta. It crashed 400m from the end of the runway landing in the "Rrio Seco". ALFG Patrico Larrea was the pilot accompanied by Jaime Paez, Corporal Lara, and a Mr. Navarrete. They all escaped with minor injuries. This was a hard blow to Naval Aviation for it was sharing the burden for patrolling missions, Now, only Cessna 172 AN-203 was left until a replacement arrived. But that's another story.

Jorge Delgado (#862), Ecuador.

### **Notes**

Note 1. The United Nations Convention on the Law of the Sea is an international agreement that resulted from the third United Nations Conference on the Law of the Sea which took place between 1973 and 1982. The Law of the Sea Convention defines the rights and responsibilities of nations with respect to

their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources. The Convention came into force in 1994, a year after Guyana became the 60th nation to sign the treaty. As of January 2015, 166

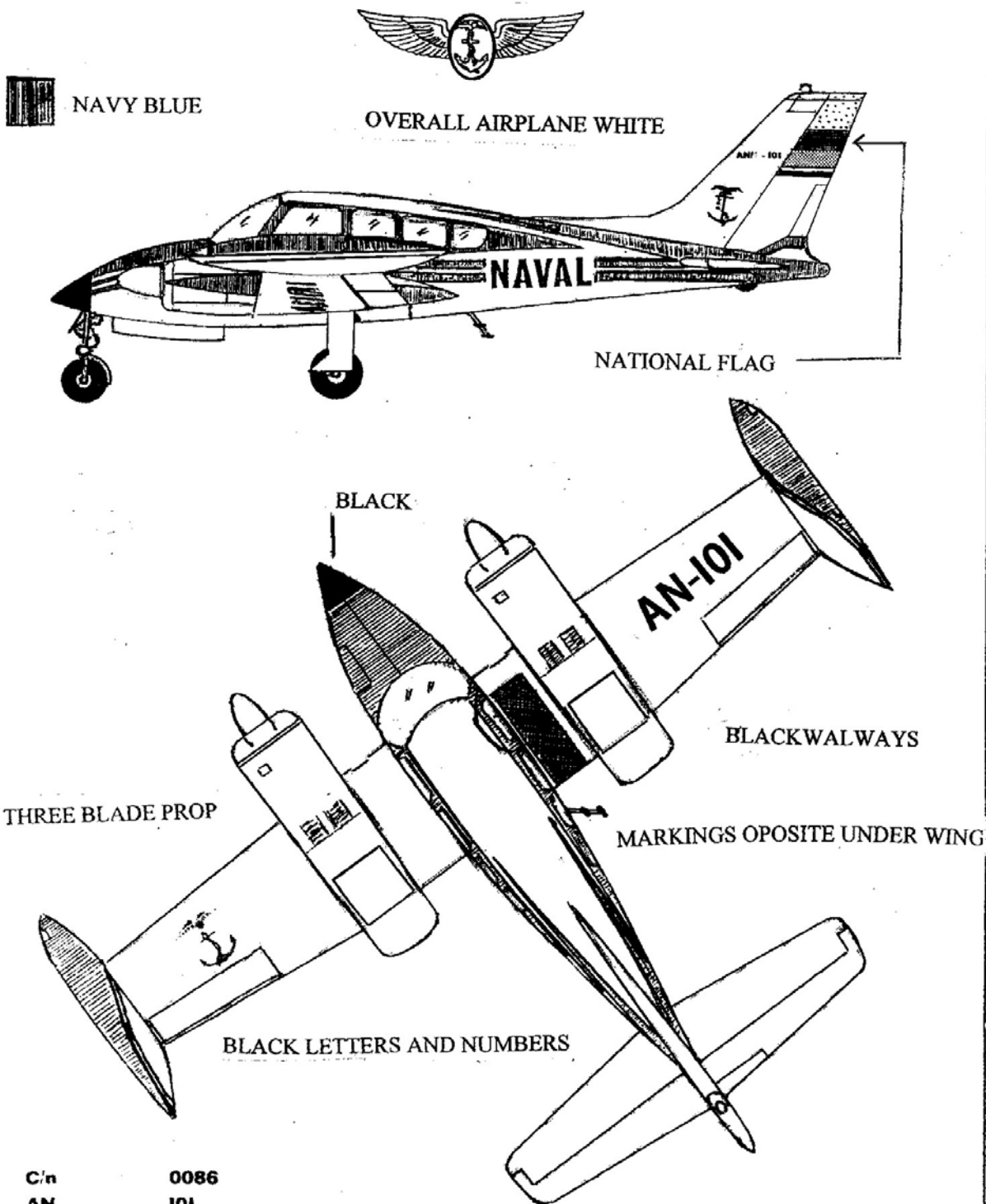
countries and the European Union have joined in the Convention.

Note 2. AN-101 was the first aircraft purchased by the recently-created Ecuadorian Naval Aviation.



# AVIACION NAVAL ECUATORIANA

## CESSNA SKYNIIGHT 320E



C/n	0086
AN	101
PREV.	HC-AMX
DELIVER	19 - 6 - 1967
W/O	14 - 2 - 1970

CAP JORGE DELGADO P.  
(SAFCH # 862)

# AVIACION NAVAL ECUATORIANA

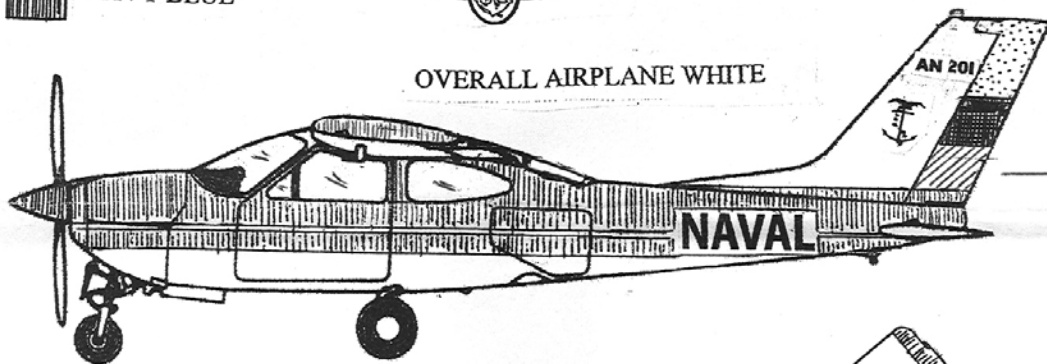
## CESSNA CARDINAL 177



NAVY BLUE



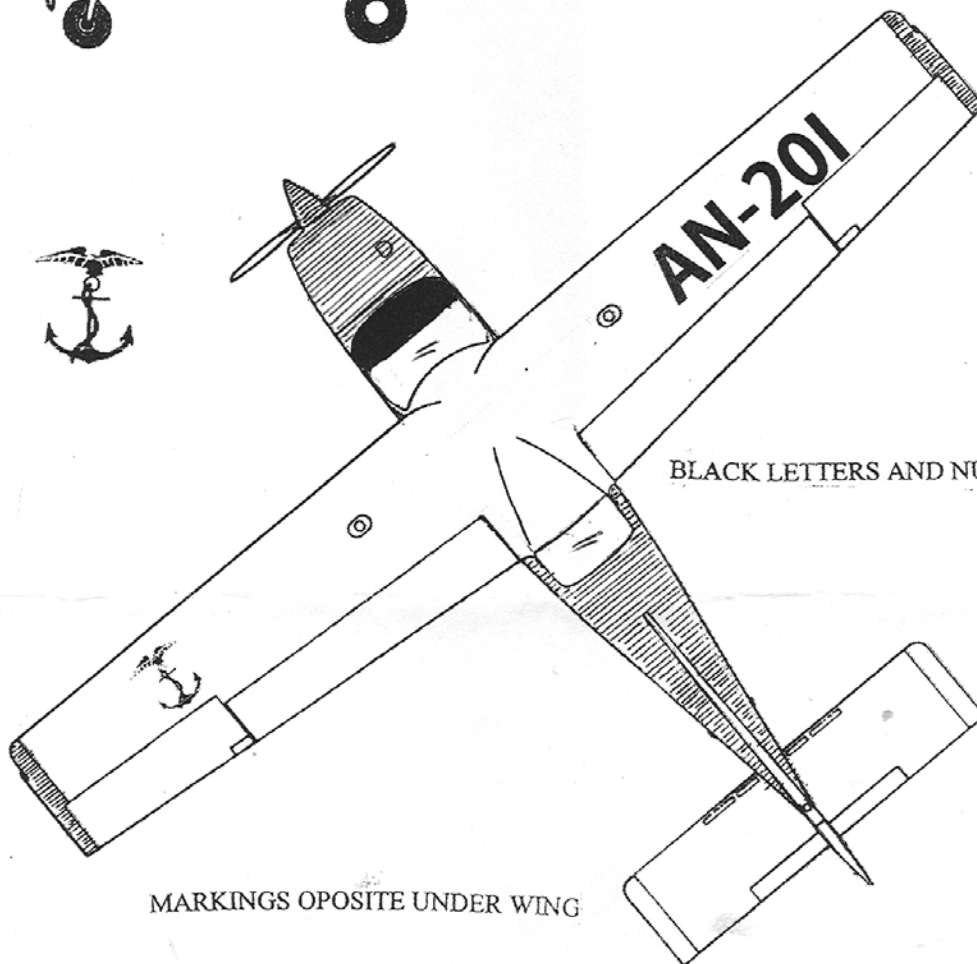
NATIONAL FLAG



OVERALL AIRPLANE WHITE

NAVAL

AN 201



AN-201

BLACK LETTERS AND NUMBERS

MARKINGS OPOSITE UNDER WING

C/N 177- 01158  
AN 201  
DELIVER 1968  
W/O 24 - 2 - 1970

CAP JORGE DELGADO P.  
(SAFCH # 862)

# The Vreeburg Twin-Engine Bomber of 1919

Frits Gerdessen



In 1919, the Luchtvaartafdeeling (LVA) displayed at the ELTA aviation exhibition in Amsterdam (1st August - 14 Sept. 1919) a twin-engine bomber built at Soesterberg. This was the Vreeburg A2M.

The A2M was proposed in mid 1917. By that time the LVA was quite dissatisfied about the output and performance of the Trompenburg factory. It was decided to build a prototype at Soesterberg that, needed, could be presented to Trompenburg for series production. The plane was to be built by the Technische Dienst (TD) in addition to its normal work. The C.LVA argued that, in case the plane was not needed, the TD would have had a useful experience.

The plane is first mentioned in the C.LVA's report for October-December 1917. He expected it to be ready by February 1918. Things went different.

The A2M was designed by ing. H.A. Vreeburg, the head of the Technische Dienst. It was basically a conversion of Sopwith 1½Strutter, LA33 (ex-9396) which had been w/o in February 1917. Apparently there had been a mishap and the wings of the second 1½Strutter (LA38, ex-9420) did not fit on the LA33. That is remarkable as both aircraft were from the same Sopwith production batch (9376-9425). Both interned 1½Strutters were bought for £ 1.100 and £ 300 respectively on 19 June 1917.

The A2M was a 3-seat twin-engine aircraft, with 80 hp Thulin A rotaries between the wings. The original wings were extended and to support the engine nacelles extra wing struts were fitted. Removing the motor from the fuselage allowed the placement of an observers' position in the nose.

The construction did not go as smooth as the C.LVA expected. In his reports, the delays with the Proefvliegtuig (experimental aircraft) are often mentioned. It started with a shortage of emallite. Once this had arrived, parts broke when test-loaded, and in the second half of 1918 the TD just had no time left to work on the A2M, because of the priority given to the delivery of the 32 Rumpler C.VIII and the large number of interned aircraft that had to be salvaged and repaired for LVA use.

At last, on 10th February 1919, the A2M was satisfactorily test flown by Lt. W.C.J. Versteegh. By this time, Ing. Vreeburg had left the LVA for service with the Netherlands East Indies aviation unit. The C.LVA mentioned in his report for February-April 1919 that the A2M now had 110 hp rotaries (These were in fact 120 hp, and likely borrowed from the 5 Nieuport 23's the LVA received in 1918.) and was due to be test flown. This was the last time the A2M was mentioned in the monthly reports. Nothing is know about any test flights.

On 28 July, the C.LVA wrote in his diary that the A2M was transported to the ELTA. Most likely this was by road.

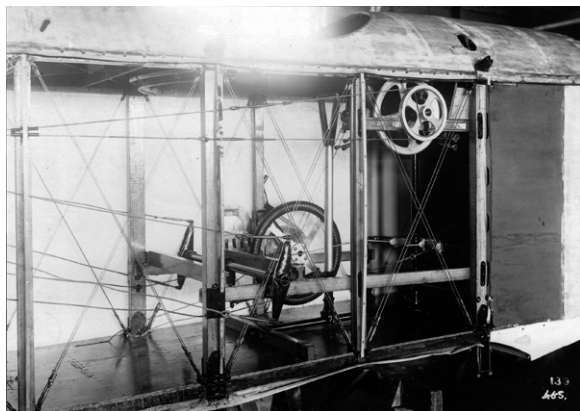
At the ELTA, the A2M was prominently exhibited, completely equipped and armed with the bombs under the wings. No more was ever heard of the Vreeburg A2M.

Technical data of the A2M were mentioned in several magazines, most prominent in *De Auto*, which had each week a large article about the ELTA. The German magazine *Automobil- und Flugverkehr* wrote on 24 August that the A2M construction was very much like the Sopwith:

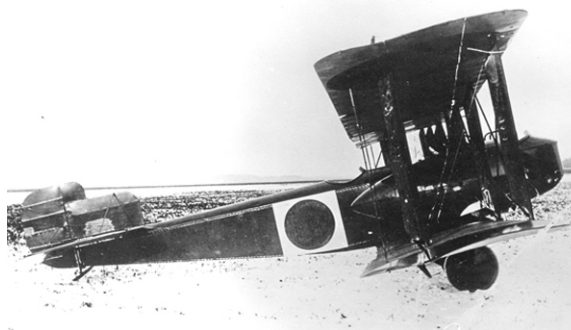
The A2M, with a wooden airframe covered with fabric, had a 3-man crew: In the nose, was an observer with a Lewis gun and a camera, the pilot sat between the wings, and aft of the wings was another observer with a Lewis gun on a Halberstad MG-ring, wireless, and bomb gear. Aside the nose position were grids attached to protect the observer from the propellers.

Airbrakes were fitted to the bottom wing and could be adjusted by a wheel in the pilot's cockpit. The tailplane was adjustable. All the bracing wires had wooden fairings.

Length	8,50 m
(1½Strutter 7,70 m)	
Span	14 m
(1½Strutter 10,21 m)	
2 Le Rhône rotaries each	120 hp
Bomb load	8 x 30 kg
Endurance	5 hrs
Speed	140 km/h



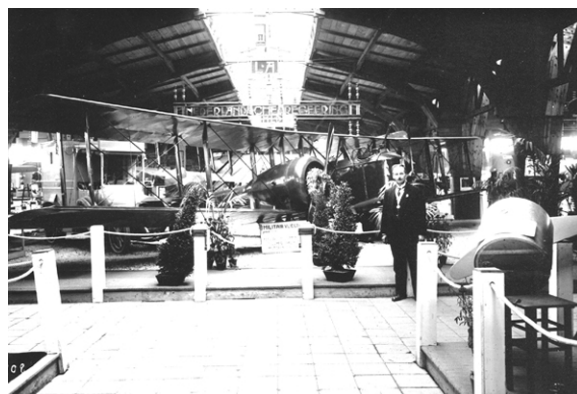
Vreeburg A2M controls.



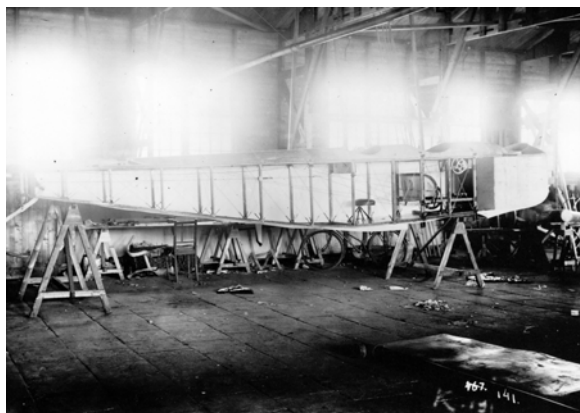
Vreeburg A2M. No armament installed.



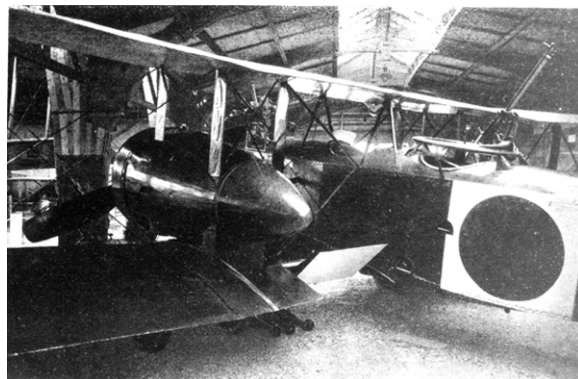
Vreeburg A2M minus nose section.



Vreeburg A2M at the ELTA, fully armed.



Vreeburg A2M nose section fitted.



Vreeburg A2M at the ELTA.

# French Aircraft during the Polish Wars of 1919-1920

Mateusz Kabatek and Reverend Father Robert Kulczyński SDB

[Editor's note: This article first appeared in the French magazine *Avions* December 2012. This translation is presented here with the permission of the authors and the editor of *Avions*. The translation is by Sandra Schachter.]

[Author's note: The use of French aircraft in support of Poland's conflicts with Ukraine and Soviet Russia from 1919 to 1920 remains a little known history of aviation. However, during this period, the Polish squadrons and French squadrons attached to General Józef Haller "Blue Army" consisted of more than two-hundred Breguet 14, Salmson 2 A2, Spad 7, and Spad 13. These machines scored several aerial victories and took part in hundreds of reconnaissance and ground attack missions, proving their effectiveness in combat.]

The Polish Air Force was established soon after Poland regained its independence on November 11, 1918. Initially, the force consisted of a motley mix of German and Austro-Hungarian aircraft: Albatros D.III, Albatros D.Va, Albatros C.X, Albatros C.XII, DFW C.V, Fokker D.VII, Fokker D.VIII, Halberstadt CL.II, Hannover CL.II, LVG C.V, LVG C.VI, Oeffag D.III. Many had been captured by the Poles at the airdromes Poznań-Ławica, Warsaw-Mokotów, Lublin, Przemyśl, and Lwów. Others were purchased in various ways or simply hijacked by the Polish pilots serving in the German forces! In this way, a few hundred machines were collected.

In the spring of 1919, Polish aviation received reinforcement in the shape of seven French squadrons (Br 39, Br 59, Br 66, Spa 162, Sal 580, Sal 581, and Sal 582) which were attached to the "Blue Army", the Polish army formed in France in June 1917. Their staff was mostly French, Poles being a minority. These units arrived in Poland in April-May 1919, with 26 Breguet 14 A2, 18 Breguet 14 B2, 1 Breguet 14 A2 GR, 39 Salmson 2 A2, and 18 Spad 7. These aircraft retained their French national insignia, camouflage, and numbers. In the following months, they received Polish markings in the form of red and

white checkerboard. The shape, position, and size of these markings varied according to the squadrons. (Note 1)

During the period from May 1919 to October 1920, the Polish government also bought 70 Breguet 14 A2, 13 Salmson 2 A2, and 15 Spad 7. Because of their poor technical condition, these machines had to be repaired at Centralne Warsztaty Lotnicze (Central Aviation Workshops) at Warsaw-Mokotów. There they received Polish national insignia and CWL serial numbers. The planes were then sent to Polish combat units.

Soon after their arrival in Poland, Escadrilles Br 39, Br 59 and Sal 581 took part in the war between Poland and Ukraine for control over Eastern Galicia. In addition, several reconnaissance flights were flown over Germany and Czechoslovakia by Br 39, Br 59 and 10. Eskadra Wywiadowcza. In 1919, war broke out between Poland and the Soviet Russia.

From September to December 1919, the French squadrons that had arrived in Poland with the General Haller's "Blue Army" received an entirely new staff consisting of Poles and had officially been integrated into the Polish Air Force.

Since January 1920, Poland also sought to acquire Spad 13. The first 18 fighters of this type were delivered to 19. Eskadra Myśliwska (19th Fighter Squadron) in September of the same year. In late 1920 - early 1921, Polish aviation received another 40 Breguet 14 A2 and 22 Spad 13; none of them took part in the fighting.

### **3. Eskadra Wywiadowcza**

3. Eskadra Wywiadowcza (3. EW) was formed on December 30, 1918 at Warsaw-Mokotów. (At the beginning of its existence, its equipment was composed of six German aircraft of miscellaneous types (Albatros C.Ia, Albatros C.VII, Albatros D.III, DFW C.V, LVG C.V, LVG C.VI)! Despite this handicap, the unit was quickly moved to Lublin and Kovel to take part in operations against Ukraine. The eskadra performed 36 combat sorties from 15 February to 1 June 1919. At the beginning of June,



3. EW returned to Warsaw for a short rest. Then it went to Ciechanów, and in November to Kraków. The following month, the escadrille finally received new machines: six Breguet 14 A2 (5684/CWL 10.7, 5696/CWL 10.2, 7320/CWL 10.5, 7386/CWL 10.3, 7428/CWL 10.9, and 7558/CWL 10.4). Until April 1920, they trained extensively, although in mid-February they performed some reconnaissance flights over the border with Czechoslovakia.

On April 13, 3. EW was sent to Starokostiantyniv and three weeks later to Kiev. During this time the crew took part in regular reconnaissance and bombing of Soviet forces (cavalry, ships and bridges over the Dnieper River). On August 20, the eskadra returned to Warsaw-Mokotów where it continued to participate in the fighting while four new Breguet 14 A2 and B2 were acquired (CWL 10.13, CWL 10.31, CWL 10.15, and 10.41). From 22 September, the unit settled near Białystok while continuing its bombing and reconnaissance missions.

During the Russo-Polish war, nearly 500 sorties were made by 3. EW. Enemy aircraft were met twice. On June 5, Major Jerzy Kossowski (pilot) and First Lieutenant Stanisław Daszewski (observer) bombed a bridge over the Dnieper. On their return to base, their Breguet 14 A2 CWL 10.1 was attacked by a Soviet Spad 7. After a short battle in which the Polish observer was slightly wounded, both aircraft returned to their respective airfields. The second confrontation took place June 18, when the Breguet 14 A2 CWL 10.11 (Major Jerzy Kossowski (pilot) and First Lieutenant Marian Liborio (observer) came upon a Bolshevik Airco DH.9 which was immediately attacked. After 25 minutes of maneuvering, the pilot of the Breguet eventually got the DH.9 in his sights. A burst of gun fire damaged the DH.9 which had to make a forced landing within its own lines. A few months later, on September 22, one of the crews of 3. EW succeeded in damaging an observation balloon.

#### ***IV Eskadra Wielkopolska (15. Eskadra Myśliwska)***

IV Eskadra Wielkopolska (IV Esk. Wlkp.), was constituted on 25 May 1919 at Poznań-Ławica. Its original equipment of six German fighters: Albatros

D.III, Fokker E.V, Fokker D.VII, was replaced by 15 Spad 7 that arrived from Warsaw in September.

The state of these machines was lamentable. The fabric, engines, and radiators all required immediate repair. On August 14, First Lieutenant Józef Dziembowski, commander of the IV Esk. Wlkp., sent to his superiors a report in which he described his opinion of the Spad 7: "I report, that aircraft receive from Centralne Składy Lotnicze at Mokotów are in absolutely horrible condition. These machines were retired by the French because they could be no longer used in the frontline units. In addition, during transport, they were not protected from rain and weather and they have suffered a lot of damage. Many parts are damaged and others are missing. Therefore, their assembly poses enormously problems, and I doubt if it is possible to prepare all 15 aircraft for combat. During tests, the engines would initially work well, but very quickly they were no longer the same. After flying for only an hour, the engine of one plane began to vibrate and the radiator was leaking in several places. In view of all this, I doubt that these aircraft can meet even the simplest requirements of the front."

Dziembowski summarized his thoughts in a report dated October 22: "The squadron has received 15 Spad 7 that are now at Poznań-Ławica. They are an obsolete type. During last year, the French used the Spad 7 with difficulty on the German front, because - despite its high speed - its maneuverability is poorer than Germany's new types. The rate of climb is significantly worse than that of the Fokker D.VII. Starting the engine causes a lot of problems and it is very difficult to takeoff in squadron formation. The radiators are poorly constructed and leak in a short time; they clog up and break after a half hour flight."

Despite all these problems, eleven aircraft were eventually delivered in a condition to begin flight training. In February 1920, IV Esk. Wlkp. was transferred in Bydgoszcz where it was refitted with the much better Fokker D.VII. Nevertheless, six Spads were preserved as reserve. In May, the unit - renamed 15. Eskadra Myśliwska (15. EM) - was sent



into the fight against Soviet forces. At that time, there only remained two Spad 7: one (11446) was used as a liaison aircraft, the other (11616) was kept in reserve.

During the war, IV Esk. Wlkp. (15. EM) performed 277 missions, but none on the French fighter. Counted in its inventory were Spad 7 5338, 5355, 5361, 5702, 11446, 11548, 11555, 11560, 11580, 11586, 11587, 11590, 11594, 11616 and 11630.

#### ***10. Eskadra Wywiadowcza***

10. Eskadra Wywiadowcza (10. EW) was formed early in August 1919 at Brześć nad Bugiem (Note 2). Its commander was Lieutenant Colonel Jan Kieżun. In October, the squadron was transferred to Poznań-Ławica where it received ten Breguet 14 A2 (7270, 7294, 7306, 7336, 7402, 7328, 7434, 7440, 7519 and 7540). The following months were devoted to training, although in the first weeks of 1920 a few propaganda and reconnaissance flights were made over the German-occupied cities of Bydgoszcz and Toruń. When the Paris Peace Conference ceded Pomerania to Poland, 10. EW was transferred to Bydgoszcz.

On 24 April 1920, the squadron received orders to join the fight against Soviet forces. Their first mission was made on May 2 from an airfield near Mazyr. A Breguet 14 piloted by First Lieutenant Stanisław Rymkiewicz machine-gunned, with good results, an enemy transport train near Vasilyevitchy. On 7 and 8 May, several Bolshevik positions were bombed in the same sector. During the Polish offensive, 10. EW change fields several times to follow the advancing troops, all the while continuing with reconnaissance and bombing missions.

On May 20, for example, six Breguet 14 bombed a transport train and an armored train between Zhlobin and Gomel. During the following days, their objectives were Soviet infantry, cavalry, river barges, and observation balloons. In late May - early June - the squadron attacked ships on the Dnieper and Sozh rivers. From June 7 to 16, it made no fewer than 20 missions during which more than 1000 kg of bombs were dropped. But, in mid-June, along with the entire

Polish army, 10. EW forced to retreat losing almost all of its aircraft in the process.

In July, when the unit moved to Brześć nad Bugiem, they had only one operational Breguet 14 A2 (probably 7270) - two others were in a damaged condition. On August 5, the unit was at Warsaw-Mokotów where it was handed eleven F.2B Bristol Fighter and was able to resume the fight. 10. EW realized a total of 167 missions on the Breguets in 1920.

#### ***Escadrille Br 39***

##### ***(16. Eskadra Wywiadowcza)***

Escadrille Br 39 was transferred from France to Poland at the end of April 1919. Its personnel consisted of ten pilots ; nine observers (Note 3); and a gunner. The unit had ten Breguet 14 A2 (7053, 7057, 7065, 7079, 7464, 7466, 7474, 7482, 7490, and 7496).

During the early weeks in Poland, Br 39 was based in Warsaw-Mokotów. In mid-May, three aircraft were temporarily seconded to Lublin from where they took part in the war between Poland and the Ukraine, making until June a total of 13 reconnaissance, bombing, and liaison missions. A Breguet 14 was lost in an accident when the crew (Sergeant Ernest Chevalier and Second Lieutenant Philippe de Beyssac) crashed.

At the beginning of June, the escadrille arrived at Kraków to begin a period of intense training mixed in with some reconnaissance missions flown over the German-Polish border. By August 14, there were only five flyable Breguet (7053, 7464, 7466, 7474, and 7490). The others had been lost in various accidents. In September 1919, the command of Br 39 was transferred Polish Captain Jerzy Rudnicki; and soon after, all planes were passed on to Br 59. Three months later, five new Breguet 14 A2 (3788, 7244, 7296, 7350, and 7410) were received. It was during this period that the insignia of the escadrille, a young girl in the traditional costume of the region of Kraków strewing flowers was placed on the right side of the fuselage, the left receiving the insignia of the pilot. Some machines also received the abbreviation "ESK. BR. 39" on the vertical tail.

In mid-April 1920, the squadron was renamed 16. Eskadra Wywiadowcza (16. EW) and sent to Kremenchuk to take part in the fighting against the Red Army. Their first war mission, on the 19th of the month, was led by Staff Sergeant Piotr Toluściak (pilot) and Second Lieutenant Lucjan Moszczeński (observer). It consisted of a reconnaissance of enemy forces in the Berdychiv sector. On April 26, Second Lieutenants Stanisław Rudnicki and Marian Burchard, aboard Breguet 14 A2 3788, made a reconnaissance of Berdychiv area. While they were strafing enemy troops, their aircraft was hit by ground fire and Rudnicki had to make a forced landing behind Polish lines. The next day, a victim of engine failure, Sergeant Józef Dąbrowski and Second Lieutenant Lucjan Moszczeński were forced to land Breguet 14 A2 7244. On May 1, a second machine was hit by ground fire while attacking Soviet cavalry. Breguet 14 A2 5717 (First Lieutenant Wiktor Komorowski and Sergeant Franciszek Siwek) crashed seriously injuring both crew members.

At the end of May, the eskadra moved to Kiev. Its main objectives were henceforth bridges and enemy barges on the Dnieper. During one of these bombing missions, on June 6, Breguet 14 A2 7244 was lost. Damaged by anti-aircraft fire, it crashed resulting in the death of Sergeant Józef Dąbrowski and Second Lieutenant Stanisław Rudnicki.

On June 10, due to the advance of the Soviet forces, 16. EW retreated from [Novohrad-Volynskyi](#). Breguets 7410 and 3788 were damaged in landing on the new airfield. Orders then arrived to deliver their last flyable Breguet 14 (7296) to 3. Eskadra Wywiadowcza. Without aircraft, the squadron departed for Warsaw-Mokotów where the pilots took part in the defense of the Polish capital on airplanes

on loan from other units. On August 12, Breguet 14 A2 7559 (CWL 10.4) was seriously damaged by Soviets ground fire; Władysław Ciechoński (observer) being killed. During the second half of August, 16. EW finally received new machines: five Breguet 14 A2 (7270, CWL 10.39, CWL 10.40, CWL 10.44, and 10.45) and two Salmson 2 A2 (CWL 12.11 and CWL 12.16).

During the first week of September, the squadron was stationed at Barszczówka with only four operational Breguet 14 (7270, CWL 10.40, CWL 10.44, and CWL 10.45). On the 21st of the month, the eskadra achieved its first victory. Seeing a Bolshevik observation balloon in the region Vawkavysk, the crew of CWL 10.40 (Second Lieutenant Tadeusz Halewski, pilot, Second Lieutenant Lucjan Moszczyński, observer) immediately strafed and bombed the target. They also dropped bombs on the station at Vawkavysk.

Their first combat with Soviet aircraft took place on 1 October. While attacking enemy troops and dropping leaflets, Breguet 14 A2 CWL 10.44 was intercepted by three Soviet Nieuport fighters. The pilot, Captain Teofil Dziama, defended using his fixed forward-firing Vickers machinegun while the observer, First Lieutenant Zenon Romanowski, used his Lewis machinegun to effect. The Poles managed to set fire to one of the Nieuports that crashed. The Breguet then return safely to its airfield. At the beginning of October, 16. EW moved Hrodna then to Lida where they received three new Breguet 14 A2 (CWL 10.41, CWL 10.6, and CWL 10.36). The last of the unit's 35 combat missions was made on October 14, 1920, four days before the armistice took effect.

## Notes

1. The squadron Br 66, for example, used an atypical checkerboard covering all of rudder with six red and white squares instead of the usual four.
2. Brest, Brześć nad Bugiem ("Brest-on-the-Bug"), Brest Litovsk (Brześć Litewski, "Lithuanian Brest" literally) - all these names refer to the same city. Its Polish name from 1919 to 1939 was Brześć nad Bugiem. Currently it is Brest a city in Belarus just inside the border with Poland.

3. An observer in Br 7 in 1918, Frédéric Geille became a pilot in the early twenties. Later he would become the "father" of military parachuting in France and would go on to command GC III/2 (1939-1940) and GC III/6 (Syria).

# Exotic Birds 7

Greg Kozak



**Cape Verde An-26.** This is a blurry but extremely rare image of an An-26 from Cape Verde. It wears the original national flag on its fin. The Cabo Verdean Army used to have its own air arm. In 1982, the USSR delivered three Antonov An-26 aircraft to Cape Verde. These were the first military aircraft possessed by the nation. From unknown internet source.



**Donetsk People's Republic An-2.** The Donetsk People's Republic was established in eastern Ukraine. It is an unrecognized state formed by a rebel group, loyal to Russia, based in the Donetsk oblast, where it controls territory. This An-2 sports the flag of the self-declared republic on its fuselage, along with the painfully obvious Russian star on its tail. From Gerald Malcom.



**Lugansk Republic Su-25.** In a similar vein, the Lugansk Republic is another self-proclaimed state in eastern Ukraine, bordering the Russian Federation, the (also self-proclaimed) Donetsk People's Republic, and Ukraine itself. Along with the Donetsk People's Republic and the Republic of Crimea, the Luhansk People's Republic is one of what the Ukrainian government calls the "temporarily occupied territories". The flag of this "republic" adorns this Su-25, and looks disturbingly similar to the flag of the former Confederacy of the United States. From Gerald Malcom.



**Honduras Bell 412EP.** The Honduran air force has a new roundel, worn by this Bell 412EP. It is essentially a cropped, circular version of the national flag and fin flash. From unknown internet source.





**Kyrgyzstan Mi-24.** Though images of aircraft from Kyrgyzstan are not uncommon, this picture of a Kyrgyz Mi-24 is quite unusual. Note the Cyrillic rendering of the title “KIRGYZSTAN” on the fuselage, along with a large national roundel to the rear of it. From Michel Extermann.



**Libyan MiG-23.** The current roundel and fin flash on this Libyan MiG-23 are not standard. Note the conspicuous absence of the white portions in both. It is not clear if they remain to be painted, but this may well be the case. Several variants of the current Libyan roundel and fin flash have been noted, though, and this may indeed be another. From unknown internet source.



**Madagascar Alouette II.** Similar to the Honduran example, this recently-acquired Alouette II of the Malagasy air force wears a circular version of the flag and former fin flash. From [forum.aviationsmilitaires.net](http://forum.aviationsmilitaires.net).



**Monaco Government Piper Seneca.** Note the red-white Monaco flag on this Piper Seneca used by the government of the principality. Monaco is a sovereign city-state, in essence a micro-state, of similar status as Singapore. From the collection of M. J. Gerards.





**Les Avions Français aux Couleurs Allemandes durant la Seconde Guerre Mondiale. 2<sup>ème</sup> Partie. De Dewoitine à Starck**, by Philippe Ricco. Hore-Serie Avions N°41. 112 A-4 pages with 205 photos and 30 color profiles. Softcover. Lela Presse, Email: <[contact@avions-bateaux.com](mailto:contact@avions-bateaux.com)>. €17.50.

Volume 1 of this series was reviewed in SAFO #156. This volume follows the same format: Each aircraft type receives a short introduction followed by photos with extended captions, color profiles, and a table of connecting French and Luftwaffe designations with notes on fate. The text is in French, the reproduction of the photos is excellent, and the color profiles are beautiful.

The aircraft types cover are listed below with the key denoting the number of (pages,photos,profiles). The “≈” indicates less than one page.

**Dewoitine** D.338 (≈,0,0); D.376 (1,3,2); D.501 (≈,1,1); D.520 (19,55,2).  
**Farman** F.222 (≈,1,0); F.223.3 (≈,0,0); F.393 (≈1,0); F.402 (≈,2,0); F.451 “Moustique” (≈,1,0).  
**FAB** FAB.17 (1,2,1).  
**Hanriot** H.182 (≈,1/1); H.232 (≈,1,1).  
**Max Holste** MH.20 (1,3,1).  
**Latécoère** Laté 298 (3,5,2); Laté 299A (2,4,1); Laté 631 “Éole”3, 7,1).  
**Liore et Olivier** LeO-H 246 (2,8,0). LeO 451 (16,57,1); LeO 455 (1,3,1).  
**Levasseur** PL.14 (1, 3,1).  
**Makhonine** Mak.101 (1,2,1).

**Moraine-Saulnier** Ms 230 (10,31,1); MS 315 (≈,1,0); MS 406 (7,22,2); MS 410 (2,3,1); MS 450 (≈,0,0).

**Mureaux** 117 (≈,0,1).

**Nieuport-Delage** MiD 622 (1,3,1).

**Payen** Pa 22 (3,7,1).

**Potez** P 25 (≈,0,1); P 43 (≈,0,1); P 540/542 (2,4,1); P 566 (≈,1,0); P 567 (≈.0,1); P 58 (≈,2,0); P 600 “Sauterelle” (≈.1,1); P 630/631 (2,6,1); P 63-11 (6,23,1).

**Romano** 82 (1,2,1).

**Salmson** D6 “Cri-Cri” (1,2,1).

**SNCAC** NC-470 (2,4,2); NC-600 (≈,1,0).

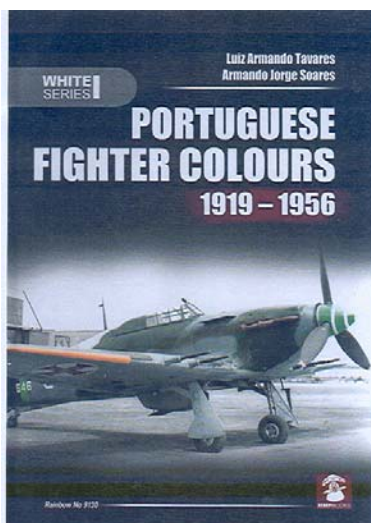
**SNCAO** LN-411 (≈,1,1); Loire 130 (3,9,1).

**SNCASE** SE-200 “Amphitrite” (8,31,1).

**Starck** AS.20 (3,10,2).

How many of these aircraft types can you identify? The D.520, MS.406, Potez 60, and LeO 451 should be a snap. However, many of the others will challenge all but the most Francophile among us. For example, consider the Starck AS.20: It's a small single-engine single-seater with two wings. The upper wing is located far forward of the center of gravity and at mid-fuselage. The lower wing is located further back and at the bottom of the fuselage. Depending on how you look at it, it can be classified as either a highly-staggered biplane or a tandem wing aircraft.

This is an excellent book and is highly recommended, but I can't help wondering if all the research and effort that went into it's publication, might have been better spent covering the same aircraft in French markings.



**Portuguese Fighter Colours 1919-1956**. by Luiz Armando Tavares and Armando Jorge Soares. MMP/Stratus White Series No. 9130. 232 12 inch by 8 inch pages. £ 35.00 in UK.

This is the latest in the series of books exploring the Fighter Colours of Air Forces on the periphery of Europe and as such follows the usual formula we have come to know. Each aircraft has a separate chapter divided into Background, Service, and Camouflage and Markings. The authors have also attempted to tie in the usual statistics of Construction Numbers, Serial Numbers tie ups, and Fates which they admit had proved difficult even for such a relatively small number of aircraft.

The layout of the book consists of a short introduction to Portuguese Aviation coupled with a summary of Portuguese participation in World War I.

The aircraft described together artwork :

SPAS S.7/C1.

Martinsyde F4 and F4A Buzzard.

Morane Saulnier MS 133/230/233 (strictly not fighters - more armed trainers).

Hawker Fury I.

Gloster Gladiator II.

Curtiss Mohawk.

Lockheed P-38G.

Bell P-39/P400 (supplied both through official channels and those interned).

Spitfire F.1A and F.V.

Hawker Hurricane IIB & IIC.

Bristol Beaufighter TF.X (strictly speaking a Naval aircraft, but absorbed on the creation of the Air Force).

Republic F-47 Thunderbolt.

Appendices cover Marking and Insignia, Colours and Camouflage, Identification and Numbering Systems, Evolution of Military Aviation Structure, Interned Aircraft, a map showing Bases mentioned including those on the Azores, and a comparative ranks chart. There is also a two-page bibliography.

This is a truly interesting book for much for what is shown and described is new – to me anyway. Some of the photos are rather murky, but given the circumstances acceptable. The authors have not been afraid to puncture a few myths about colours - good for them - but

they have also tempered their conclusions with caution.

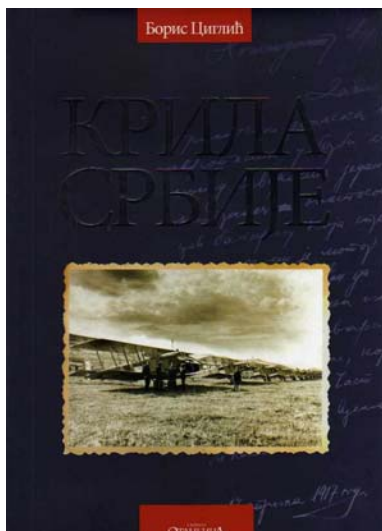
Those wishing to buy this book should take heed of Peter Walton's comments in SAFO #156 about buying online.

Malcolm Barratt (#1716), UK.

[Editor's note: Malcolm also called my attention to the following two books that should be of interest to SAFO readers. I've not seen either book and all I know is what was on the Internet.

The text of the book on Serbian aviation is said to be in two languages – hopefully one of these languages is English. However, the price is very high, approximately \$100.

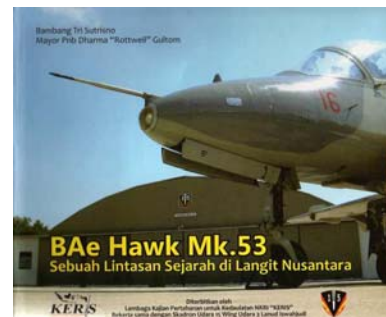
The book on the Indonesian Bae Hawks is entirely in the Indonesian language, but with 268 pages there should be lots of color photos. No price is given.]



**Wings Of Serbia, Aviation Command & Aeronautique De L'Armee Serbe 1912-1920.** Various authors. 550 pages. Published 2009 by Infinitas. £49.95.

This dual-language book details the activities of the Serbian Air Force prior,

during & in the immediate post-war years. The book contains black & white photos throughout.



**Bae Hawk Mk.53: Sebuah Lintasan Sejarah Di Langit Nusantara.**

This Indonesian language book details the service history of the Bae Hawk Mk 53. The book includes colour photos throughout.. Sutrisno. Edition: 2015, 268 pages. Published 2015 by KERS. £39.99. ISBN : 9786021887929.

## -kits-models-kits-models-kits-models-kits-models-kits-models-kits-models-kits-models-

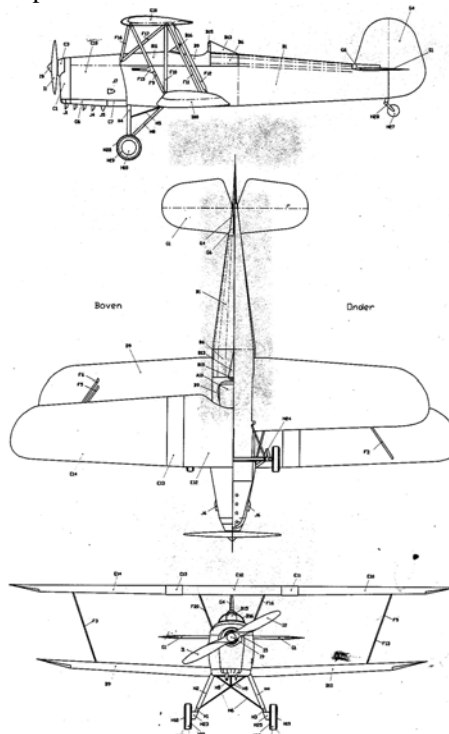
**Lambach HL.II**, 1/32 scale paper model. Four A-4 size sheets on sturdy, glossy paper. Single example available from the SAFCH Sales Service for \$5 plus postage.

Toon van der Aa (#1731) of The Netherlands sent this paper airplane kit. Most modelers do not take paper airplanes very seriously, but their construction does take quite a bit of care. The first model I built was during WW2 - a Fairey Fulmar from a box of Wheaties. This got me hooked – it was on to solid balsa and then to plastic. This Dutch kit is the result of modern technology applied to the ancient art of designing paper-model airplanes.

The instruction sheet for the kit describes the background of the aircraft and the model:

“On the occasion of the 45th anniversary of the Society “Leonardo da Vinci” in 1989, several students decided to build an aeroplane. In this way, they could practice the theory they were studying at the Faculty of Aerospace Engineering at the Delft University of Technology. The aircraft they decided to rebuild was an aerobatic airplane of the nineteen thirties, the Lambach HL.II. In 1999 a foundation, abbreviated in Dutch

as SSVOB, was formed to co-ordinate the construction, which was expected to take one year. Not before April 24th 1995, the finished second Lambach HL.II had her roll-out. This major event was followed by her maiden flight on September 18th.



### History

Because of the supremacy of German aircraft at the annual Whitsuntide Flying Festival at Eelde in the early thirties, several leading Dutch industrialists gave the young Delft engineer Hugo Lambach the assignment to design and build an aerobatic airplane in 1936. He concluded the design and construction of his biplane in just six months. It consisted of a steel tube airframe covered with linen, to which the wooden wings with a span of 8 meters were attached. The aeroplane was powered by a 130 hp, 4 cylinder Gipsy Major MK.1. After her maiden flight, the test pilot Schmidt Crans praised the excellent flight characteristics. At the 1937 Whitsuntide Flying Festival the Lambach placed third after two German aircraft. This was a better achievement than it seems, since the maiden flight was just one week before the festival.

Afterwards the aeroplane served as an advanced trainer at the National Aviation school. In May 1940, at the start of the World War II, the aircraft was destroyed during German bombing raids at Ypenburg airfield, near the The Hague. Only a complete set of drawings survived.



## The replica

After the decision was made to rebuild the HL.II, the entire set of drawings was copied because of the poor quality of the originals. Soon the production of components was started. This was shortly followed by the construction of the wooden wings and the welding of the steel-tube airframe. The Military Aviation Museum in Soesterberg provided the engine, which had to be completely overhauled. Supported by the many advices of ir. De Koo, the former chief-engineer, the construction was completed after 5 years of hard labour. The students attended to all aspects of aircraft manufacturing. For example, they have designed several modifications to the design to fulfill the modern airworthiness requirements. Also the certification of the construction to guarantee the quality of the aircraft has been done by the students themselves.

At the first nice spring day, 24<sup>th</sup> April 1995, the aeroplane was presented to the public and named "Lambach HL.II". To those present, more than 600 people, the sound of the running Gipsy Major was a great experience. The same day, the builders heard that the HL.II project had won the Phoenix group prize awarded by the Federation Aeronautique Internationale (FAI). This world-wide prize confirms that the Dutch really build airplanes of world-class.

## The Lambach Model

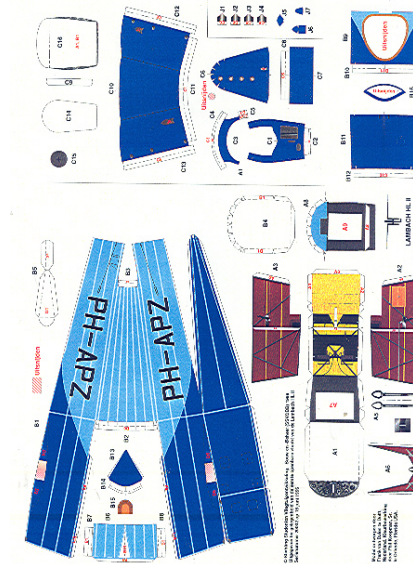
The paper model of the Lambach HL.II was designed entirely in the computer. One could say that this is worlds first 'paperless' paper model. The basis for the model was Medusa CAD drawing no 20502 of the original set used for the construction and certification of the Lambach replica. This drawing was reworked into the three-dimensional AutoCAD model. A new FORTRAN computer programme developed specifically for the purpose, was then used to create patterns from the three-dimensional surfaces in the computer model. This process guarantees the best possible fit of all parts.

With the line art completed, the colour art work was then added using another set of computer based techniques, developed specifically for paper-model design. The CAD-generated parts were converted into polyline formats for an

illustration program. Texture and computer-generated airbrushed covering for the model were done with an advanced type of bitmap editor. This covering was combined with the line art, and added lettering, to complete the model. These final drawings were combined in a publishing program for the final computer-drive colour printing.

As the line art design took place in Delft, Holland and the colour artwork was done in Orlando, Florida USA, an efficient way of communication was established based on Electronic mail and FTP links across the Internet. The paper Lambach model had consequently traveled across the Atlantic Ocean in electronic format many times before the prototype was even built. The designers feel justified in claiming that this is the most advanced paper plane ever made, and that the model does full justice to the high quality of workmanship in the full scale Lambach replica."

*This card kit of the Lambach is available from the SAFCH Sales Service for \$6.00 plus postage. Also available is a card kit of the Dutch DC-2 from the England to Australia Race for \$4.00 plus postage.*



**Brewster F2A-2.** 1/72-scale die-cast model. Authentic markings for VF-3 US Navy from the USS Saratoga in 1939. \$24.95. Historic Aviation, [www.historicaviation.com](http://www.historicaviation.com).

I've never been much of a fan of die cast models. I've found them chunky and toy like. However, when I ran across this

Buffalo in a catalog with what appeared to be accurate colors, I couldn't resist. And, the price was probably not much more than I'd have to pay for a plastic kit, paint, and decals – not to mention the time and effort of painting and decaling a kit.

I wasn't disappointed! The kit comes completely assembled except for the propeller and landing gear. I was a little leery of the fit of the landing gear, but the aircraft stands proudly next to my plastic Buffalos. The color scheme is accurate with the pre-war USN yellow wings and horizontal tail, blue wing chevrons, fuselage band, and cowlings of 2-F-7, and yellow vertical tail indicating service aboard the USS Saratoga.

This model is highly recommended to any modeler reluctant to tackle the complicated pre-war USN color scheme.

## Die-cast and other ready-made models.

Among the models of interest to SAFO readers announced in the Summer 2016 catalog from *Historic Aviation* are 1/72-scale die-cast models of Brazilian F5 Tiger II & A-4Skyhawk, Swedish Saab J-35 Draken, and Japanese JASDF T-4 Trainer at \$17.95 each. Also available is a United Arab Emirates MB-339 for \$29.95. In this same issue, there is a full page of die-cast models of China PLAAF aircraft in various scales and prices. To mention a few: 1/72 scale J-10, J-11b, & JH-7 FBC-1; 1-48 scale J-5, J-6, J-7G, Z-9, AC-313 & Z-19; 1/144 scale H-6K. Prices range from \$24.95 to \$9,00.

The Summer 2016 catalog of *Military Issue* announces 1/72-scale plastic models of two Finnish Buffalos: BW-352 in the over-all silver delivery scheme and "Blue 5" in Continuation War camouflage. \$19.95 each.

[Editor's note] *Military Issue* and *Historic Aviation* are from the same organization and if you buy from one you'll get catalogs from both. Even if you don't buy anything, you'll want to get their full-color catalogs. Besides models and kits of aircraft, ships, armored vehicles, cars, spacecraft, & figures they offer books, paintings, DVDs, apparel, etc. Anyone for a 1/30 scale Ju 52 for \$699?

[www.HistoricAviation.com](http://www.HistoricAviation.com) 800-225-5575, and [www.MilitaryIssue.com](http://www.MilitaryIssue.com), 800-989-1945.

## -decals-decals-decals-decals-decals-decals-decals-decals-decals-decals-



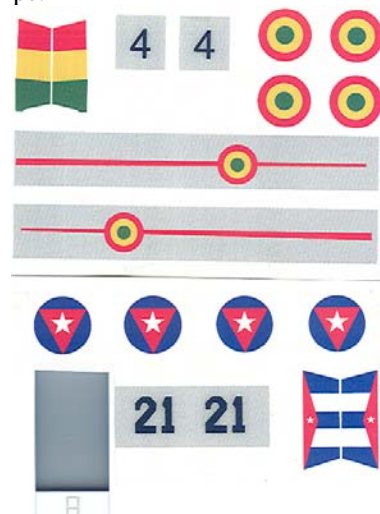
**Cuban & Bolivian Curtiss Hawk II.**  
1/48-scale decals. Antarqui Decals, 757 Emory St., #106, Imperial Beach, CA 9991932.

The Curtiss Hawk II is the export version of the USN's F11C Goshawk. Countries employing the Hawk II include: Bolivia, Chile, China, Columbia, Cuba, Thailand Turkey, and Peru. This latest twin-set from Antarqui features 1/48-scale decals for two Curtiss Hawk II: Cuban '21' and Bolivian '4'.

The Cuban Hawk II has a silver fuselage and vertical stabilizer with yellow on the upper surfaces of the wings and horizontal tail. The decals sheet measures 125mm by 65mm and include "roundels" for the usual four wing locations, stripes for both side of the rudder, and two "21" for the fuselage.

The Bolivian Hawk II is in the colors it carried during the Garn Chaco War: silver over all with a red cowling. The decal sheet measures 130mm by 90mm and includes roundels for the usual four wing locations and for the fuselage; the

latter including the fuselage-long red stripe.



These decals are available from the SAFCH Sales Service for \$9.00 plus postage.

## -letters-letters-letters-letters-letters-letters-letters-letters-letters-letters-

[Editor: Denys Voaden (#1483) sent a couple of clippings from the *Washington DC Times* that may not have appeared in your local newspaper.]

2015.03.20: "China marshals forces on Myanmar border." The Chinese People's Liberation Army moved attack helicopters and J-7 supersonic jet fighters to the Myanmar border in response to what it said was the bombing of Chinese villages by Myanmar MiG-29s. Myanmar denied the accusation and suggesting that Kokang rebels were responsible [Voaden: I don't know the Kokang, but I much doubt they have aircraft!]

2015.12.27: "Tranquil Somaliland pins its economic hopes on a harbor that would handle commerce for neighboring Ethiopia." Although Somaliland is not recognized by any other country, it's a bright spot in an otherwise dark Horn of Africa. No mention of an air force in the article, but there is a photo of "The monument of a downed Somali MiG-17 that took part in bombing the capital city, Hargeisa, during the 1988 suppression of Somaliland's first attempted secession."

"Some comments about SAFO #156: This issue had much of interest

especially the continuing story of Dutch Military Aviation, and I am considering investing in Blue Skies Orange Wings after reading the review. I endorse the comments by Peter Walton concerning Amazon. Indeed, I have bought books from the USA at less than the cost of buying them here in the UK – even allowing for postage.

You repeated Denys Voaden's query about the date of painting 'The Magic Carpet'. (I assume my reply was lost in your great computer meltdown.) A quick search on the Internet revealed several biographies of the painter Vasnetsov, and all agree that 'The Flying Carpet' was painted in Moscow during 1880 and can now be found at the Art Gallery in Nizhny Novgorod. At least one website 'Olga Art' offers prints for sale.

"The centre four pages of #156 were not stapled in place. Don't worry about it. I can effect a repair."

Malcolm Barratt (#1716), UK.

[Editor: I sent Denys a copy of Malcolm's reply, but forgot to include it in #156. Me bad!. Several members have comment about the lose center page. I don't know how prevalent this is, but all my extra copies of #156 are OK. It's easy

to repair - if you have access to a 'saddle' stapler.]

"Just wanted to pass along that, as of last Friday at 2400hrs, I retired from The Museum of Flight and went to Emeritus status. Now I can attend to this maze of projects that I have had languishing in my man cave for years!

"However, the main reason I am writing is to congratulate Santiago Rivas on his truly outstanding article on the Fw 44 in Argentina. Very well done and surely did put a lot of open questions to rest!"

Dan Hagedorn (#394), USA.

"I'm writing a book about the Embraer Tucano in service in Brazil and with all other countries that operated it. I am still trying to obtain contacts with people you can help me find pictures and information about the Tucano and Shorts Tucano in service with Mauritania, Angola, Kenya, and Kuwait. Anyone who can help, contact me at <zeitun@gmail.com>."

João Paulo Moralez (#1712), Brazil.



EVA MB 151 Δ-177 was also received in April 1939, but at some point in its first year of service it was apparently involved in a “gear up” landing which rendered it unserviceable for the rest of its existence.



EVA MB 151 Δ-177 was also received in April 1939, but at some point in its first year of service it was apparently involved in a “gear up” landing which rendered it unserviceable for the rest of its existence. “Colorized” photo by Markos Danezis.

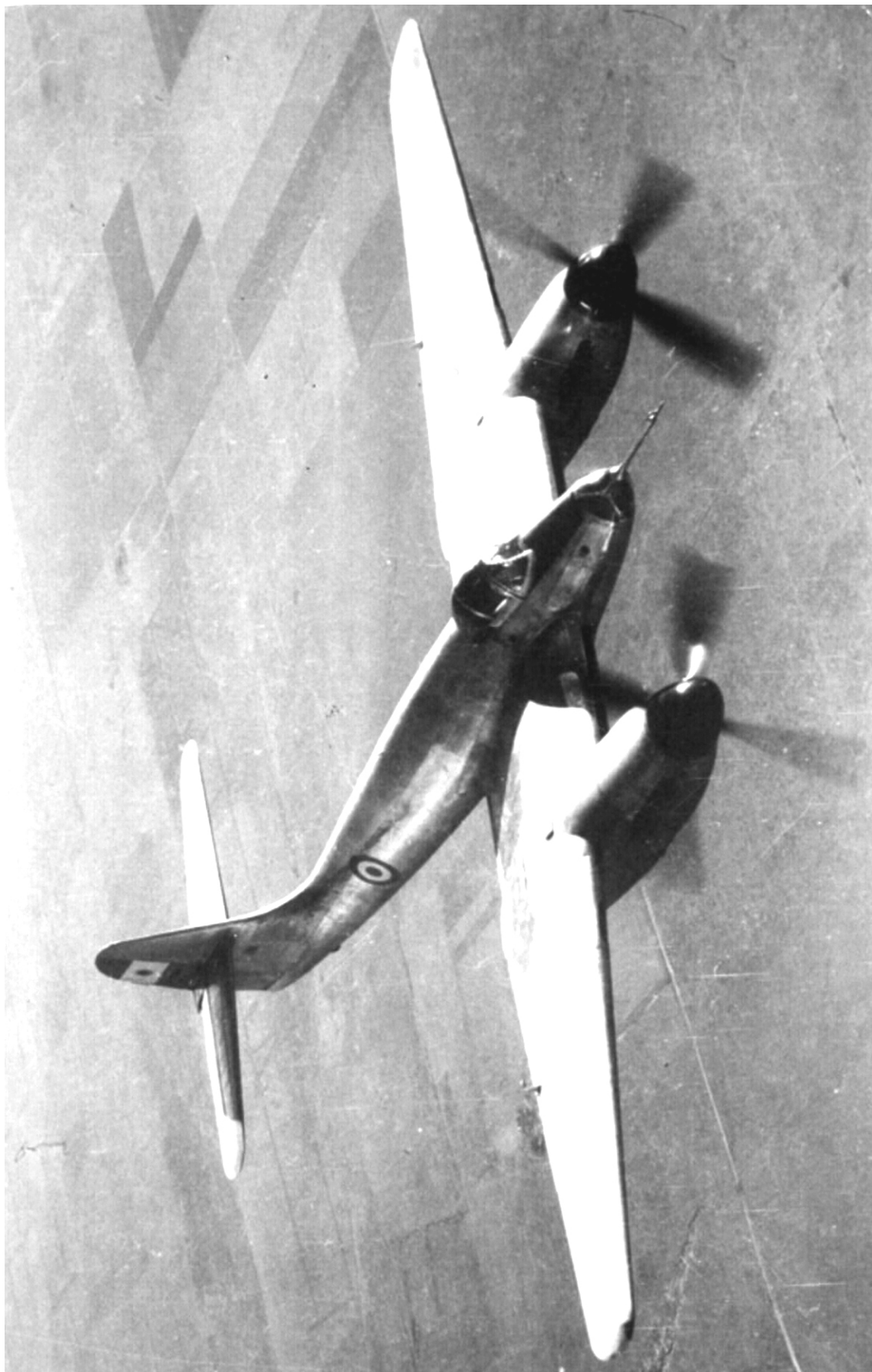


EVA Bloch MB 151 Δ-173 was one of six 24 Mira MB 151s to deploy to Salonika’s Sedes airfield, providing air defense for that strategic port. During one mission it developed engine problems and was landed at Larisa airfield, which was primarily used by the RAF. Note the EVA Po 633 twin-engine bomber in the background.



After landing at Larisa, Δ-173 remained there as a “parts donor” – as evidenced by all the opened hatches and engine panels – for the rest of the conflict and was captured intact, though derelict, by the invading Germans. Note the Junkers Ju 52/3m in the background.





The prototype during one of the last flights of 1949 before the accident. The new canopy can be seen.